

*Education in the Fourth Plan* comprises three lectures delivered by Mr J. P. Naik in April 1968 under the auspices of the Indian Committee for Cultural Freedom, Bombay. These lectures, both forthright and illuminating, subject educational planning in India during the last eighteen years to a severe but sympathetic analysis. They also make a comprehensive review of problems and prospects of educational planning in the Fourth Plan. The book includes Mr Naik's 'A Historical Review of Educational Planning in India', a paper presented by him at the Round Table Conference on 'The Role of Educational Planning in the Economic Development of the Arab World' at Beirut, Lebanon, February 19-28, 1967.

The book carries a *Foreword* by Professor D. R. Gadgil, Deputy Chairman, Planning Commission, Government of India.

Mr Naik is author of several books on education. He has been Educational Adviser to Government of India for several years. He was Member-Secretary of the Education Commission (1964-1966) which made a comprehensive analysis of the educational problems of India, and whose recommendations are now being studied by both Central and State Governments with a view to their implementation. Mr Naik's role in the preparation of the Report of the Education Commission has been a major one.

Members of the Education Commission in their Foreword to the *Report* say: "We cannot conclude our acknowledgements without expressing our indebtedness to Shri J. P. Naik, Member-Secretary of the Commission. His unrivalled knowledge of educational problems and statistics and indefatigable energy have been a source of unfailing strength and inspiration . . ."

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# Education in the Fourth Plan

J. P. NAIK

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INDIAN COMMITTEE FOR CULTURAL FREEDOM

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# Education in the Fourth Plan

## Review and Perspective

by  
J. P. NAIK

*Foreword*  
by  
D. R. GADGIL



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## INTRODUCTION

*Education in the Fourth Plan* comprises three lectures delivered by Mr J. P. Naik under the auspices of the Indian Committee for Cultural Freedom at the Convocation Hall, University of Bombay on April 15-17, 1968.

It was indeed a privilege for the ICCF to have arranged these lectures on education by Mr Naik who, perhaps more than anyone else in the country, is pre-eminently qualified to speak on the subject. Mr Naik's association with education in its varied aspects, teaching or planning, and his strong commitment to the values of education are fully reflected in these lectures. It would not be an exaggeration to suggest that these lectures would form the basis of educational thinking and reconstruction in India for the next decade or two. This would be not merely because Mr Naik is one of the principal planners of education in India today but also because of the intrinsic value of the proposals he makes.

Mr Naik, in his analysis of educational planning in the future, does not underestimate the awesome responsibilities or the immense difficulties which would be faced by educational planners. But these difficulties are not unsurmountable, largely because education is engaging the continuous attention of a person like Mr J. P. Naik. One need not totally despair of the future of education in India, precisely because Mr Naik himself is associated with its planning and implementation.

It would be appropriate to mention here that the ICCF is particularly happy that the maiden publication of Nachiketa Publications comprises the Naik lectures arranged by the ICCF.

V. K. SINHA

*Executive Secretary*

Bombay

April 17, 1968

*Indian Committee for Cultural Freedom*

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## FOREWORD

I have great pleasure in writing this Foreword to the lectures on Educational Planning in India delivered by my old friend, Shri J. P. Naik. Shri Naik has very special qualifications to talk about Educational Planning in India. He has direct experience of conducting institutions at the primary, the secondary, the training and the research level. He has also wide administrative experience, particularly, in the field of Education. Lastly, he has in recent years been actively associated with the Ministry of Education at the Centre and has been Member-Secretary of the Education Commission. He is, thus, in a position to draw upon a large fund of practical experience of educational activity and administration. This gives realism to his thinking and proposals. It is notable at the same time that the idealism and faith which have inspired Shri Naik through his entire career have not been significantly lessened by the passage of years.

I was particularly pleased to observe Shri Naik's remarks about expenditure orientation of our Planning in the past. Also, though it may appear paradoxical, his contention that for many years educational planning proceeded as if restriction of resources was no impediment is also very significant. These observations hold good not only in relation to educational planning but also to planning in many other spheres. I believe that, in the main, this was the result of planning being highly centralised. The emphasis Shri Naik places on planning at the State, the district and the institutional level is, therefore, highly welcome. It is only when we begin to think in considerable detail of problems in particular time-space contexts and the solution to them that we would be able to plan meaningfully and purposefully and to use our resources economically. Also, emphasis could then shift in a real sense from expenditure on expansion which gets easily reflected in statistics to efforts at all-sided development. This is not to decry expansion. Considerable expansion of educational facilities is still needed in our country. For example,

I think that Shri Naik adopts too negative an attitude towards enrolment in colleges. Educational opportunities for collegiate education have yet to reach a number of areas and strata. However, there is considerable scope and need to rationalise the process of this expansion and to insist on maintenance of minimum standards.

Shri Naik points to many aspects of educational development which can be pursued without considerable monetary expenditure. All these aspects have one thing in common. They are not dependent on significant inputs of materials and men per unit of output; however, they require intensive inputs of quality effort on the part of individual teachers and scholars. I have a feeling that this latter aspect of the problem has not been brought out adequately by Shri Naik either in this connection or in connection of what, for want of a better term, Shri Naik calls the 'Swadeshi Movement'. Our pathetic belief in the superiority of the outsider is a reflection of a serious qualitative weakness internally. We shall not be able to improve standards or to grapple meaningfully with our problems until this weakness disappears. And it will disappear only when we cease to regard and to conduct ourselves as if we were second-class members of the English-speaking intellectual community.

D. R. GADGIL

New Delhi

April 11, 1968

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## EDUCATIONAL PLANNING IN INDIA : ANALYSIS

We have now had an experience of eighteen years of educational planning—three Five Year Plans and three annual plan years. A comprehensive review of this experience in depth is thus obviously overdue; and the need for it is heightened by the recent changes in the political scene with their far-reaching implications for Centre-State relationships and by the decision of the Government of India to prepare a new Fourth Five Year Plan beginning in April 1969. In fact, one now wishes for a sustained nation-wide debate on the subject so that we might profit by our past experience and bring about a substantial improvement in the techniques of educational planning and implementation to be adopted in the fourth and subsequent plans. The object of this paper is to stimulate such a debate.

## I I. PLANNERS OF YESTERDAY AND TOMORROW

As an introduction to the proposals which I wish to put forward, may I compare, at this important cross-roads in our educational history, the unenviable position of the educational planner of tomorrow with the enviable opportunities which his counterpart of yesterday could enjoy? The educational planner of the first three plans could work against a background of political stability. The same political party being in power at the Centre and in the States gave him an ultra-constitutional tool to deal with education almost as if it were a concurrent or even a Central subject. He could obtain funds with comparatively greater ease because the committed expenditure on education had not increased to its present dimensions and because the scope for additional taxation was not so restricted as at present. His task in educational development was also comparatively easy because the system was in the initial stages of its take-off and because its internal stresses and strains had not reached their present intensity.

What is even more important, he could bank on the general air of optimism that then obtained in the country and on the enthusiastic co-operation of the teachers, students and parents. Compared to him, the educational planner of tomorrow has tremendous odds to face and immense handicaps to overcome. He will have to plan and work, for some time at least, against a background of political instability and strictly in accordance with the constitutional position that education is largely a State subject. The resources available to him, even at current prices, will be largely limited on account of several reasons such as the inability of Government to raise or even collect taxes, to control unproductive expenditure or to withstand the temptation to give politically convenient but financially disastrous tax reliefs. His task is also far more formidable because of the severe strains to which the educational system is now subject, the immense increase in student unrest and the general feeling of apathy and frustration that seems to be getting hold of the teaching profession. His only advantage over the planner of yesterday is that he has greater experience of planning techniques. But in this, he resembles the well-intentioned young son of a rich joint family who begins life with plenty of goodwill and abundant finances but without experience. As often happens, he gains his experience a few years later when the capital has evaporated, the joint family broken up and the goodwill almost destroyed. He is certainly wiser, but sadder too.

What is the educational planner to do under such circumstances? An easy way out is to give up planning altogether, either in a spirit of defeatism at the impossibility and enormity of the tasks posed or in the naive belief that 'somehow good shall be the far-off end of ill' and that, like the proverbial Englishman, we will also, muddle through to success. This mood seems to be gaining currency at present as is evident from the cynical references that are often made to the proposed new Fourth Five Year Plan or to the planning process itself. When I go round the States and try to discuss educational planning with the worldly-wise Education Secretaries, I am often greeted with a polite but cynical smile and asked inconvenient questions. For instance, I am first reminded that educational planning has necessarily to be long-term, spread

over fifteen to twenty years at least, and then asked: how can Governments which count their life in as many months or even days ever take interest in such long-term plans? Some others raise the question of resources and ask: what is there to plan with? One of them even quoted a verse from Jonathan Swift. In his extreme old age, when he was blind, Swift used to be often taken out for a ride in a coach. During one of these rides, he heard some loud noises and asked what they were. On being told that a magazine was being constructed, he wrote the following poem:

Behold of a proof of Irish sense,  
Here Irish wit is seen.  
When nothing is left that is worth defence,  
We build a magazine.

I am glad that in spite of all difficulties, and provocations to the contrary, the Education Secretaries have still been able to retain a sense of humour. There can be no better proof that all is not lost as yet and that there is still some hope to live for.

I must confess that I cannot be a party to this mood of despair. It is a pity that we did not make full use of the opportunities that we had in the last eighteen years. But let me emphasize that planning is not an exercise meant exclusively for times of plenty. On the other hand, it is needed most in times of scarcity. It would not have mattered very much if we had not adopted planning in education in 1950. But to give it up now would be suicidal. If planning was ever needed in India, it is needed at this stage and this need will grow as resources become less or difficulties increase. There is also no need to lose heart. Challenges of the type we are now facing have often been met and can be met through improved techniques of planning, greater human effort and an intensified spirit of idealism and dedication. I am, therefore, not cowed down by the argument that there is so little to plan *with*. On the other hand, I am impressed by the argument that there is so much to plan *for*: the welfare, the progress, the security, and even the very survival of this great country depends on what we do in education in the next five to ten years. The difficulties we face only imply that we are

on our trial. There can therefore be no question of a defeatist abandonment of planning. Instead, we should accept the challenges of the situation and rise to the occasion by better planning and more determined and effective implementation.

### III. A REVIEW OF MAIN ACHIEVEMENTS (1950-68)

As a continuation of these introductory observations, may I also discuss some of the major achievements and failures of our educational planning during the last eighteen years?

*Expansion of Educational Facilities:* The first and foremost of our achievements in educational planning during the last eighteen years is the tremendous expansion of educational facilities at all stages and in all sectors. For instance, enrolments in classes I-IV have increased from 13.7 million or 37.8 per cent of the age-group 6-9 in 1950 to 37 million or 69.2 per cent of the age-group in 1965, the latest year for which the statistics are available. Similarly, in classes V-VII, enrolments have increased even faster—from 3.2 million or 13 per cent of the age-group 10-12 in 1950 to 12.6 million or 35.6 per cent of the age-group in 1965. This implies that the average annual rate of increase of enrolments in classes I-IV has been 6.0 per cent and that in classes V-VII, 9.5 per cent. Taken by itself, this is undoubtedly a laudable achievement.

But I wonder whether we shall be justified in giving all the credit for this advance to educational planning. To understand this problem in its proper perspective, one must ask oneself the question: what would have happened if there had been no planning at all? It is of course possible to argue that, under such an eventuality, the present level of expansion would not have been achieved. But I do not share this view; and I have a strong suspicion that, even if the techniques of planned development had not been adopted, much of this expansion would have still taken place in response to the strong social demand for primary education. There is also another argument to be considered. Planning can only be defined as the achievement of pre-determined goals according to a specified programme. On this basis, our attempts to expand primary education can only be said to have ended in a failure. For instance, universal education was to have been

provided, by 1960, to all children till they reach the age of 14 years. We are still far from realising this goal. Even the revised target of providing universal education in the age-group 6-11 by 1965-66 has not been achieved and may not be achieved till 1975-76. This can be a sobering thought to those educational planners who try to show every natural development as a consequence of planned efforts.

At the secondary and university stages, the expansion of facilities has been even more rapid. Enrolments in classes VIII-XII increased from 1.8 million or 6.1 per cent of the age-group 13-17 in 1950 to 7.5 million or 14.5 per cent of the age-group in 1965, which implies an average annual growth of 9.8 per cent. At the university stage, enrolments in all faculties increased from 0.3 million or 1.1 per cent of the age-group 18-22 in 1950 to 1.2 million or 2.7 per cent of the corresponding age-group in 1965, which implies an average annual growth of 9.6 per cent. Spectacular as these achievements are, it would not be quite correct to say that they were all planned for. Our planners have generally talked of controlling expansion at these stages, of diverting students into different walks of life, of vocationalising secondary education and of selective admissions to the university classes. If they had succeeded, these enrolments would have been much smaller than what they actually are. This unprecedented expansion is therefore mainly due to strong social pressures and has been achieved in spite of the planners' wishes to the contrary. It is thus more an evidence of the failure of plans, rather than of their success.

Expansion has been the least in one sector—mass literacy—which has increased from 16 per cent in 1951 to only about 30 per cent at present. In spite of this, there has been an increase in the number of illiterates in the country during the last twenty years because the rate of growth of population is much faster than that of the increase in literacy. This slow progress of literacy is mainly due to the very low priority accorded to it by our planners. This is obviously a major weakness as it ignores the important principle that an effective and intensive programme for the liquidation of adult illiteracy is the first essential step in the regeneration of a static and traditional society.



In spite of such shortcomings, I still maintain that the expansion of educational facilities at the primary, secondary and university stages which we have been able to secure in the last eighteen years is a grand achievement. It was obviously very necessary. In 1951, the level of educational facilities reached was extremely limited and priority had to be given to programmes of expansion because the attainment of Independence had created a great hunger for education, especially among those classes which had been denied it in the past. It was also inevitable because it is next to impossible, in a democratic society based on adult franchise, to resist strong popular pressures for education. We must further recognise that this expansion has played a dynamic part in the transformation of Indian society by creating new opportunities for several suppressed groups which have since thrown up new leaderships and bands of workers. Taken as a whole, therefore, this expansion has been beneficial and helped in creating a more evenly balanced economy and society.

In some other sectors, planning has made a much better contribution to the expansion of education. For instance, the expansion of facilities in technical and vocational education through the establishment of Indian Institutes of Technology, engineering colleges, polytechnics and industrial training institutes has been essentially due to planned effort and has made a significant contribution to our industrial development and defence potential. The same can be said about the expansion of facilities in medical education which has made a great contribution to the improvement of our health services, of the expansion of agricultural education which has assisted farm production, or of teacher education which has led to an increase in the proportion of trained teachers. The expansion of science education and of science departments in universities is yet another example of fairly successful planning and so is the development of scientific and industrial research. To a very large extent, expansion of the education of girls and of the backward classes is also due to planned effort. It is not that there have been no weaknesses in these sectors. In fact, the programmes of technical education have recently run into some heavy weather. But all in all, these may be said to be the fairly successful instances of planned development.

*Qualitative Improvement of Education:* In comparison with these programmes of expansion, our achievements in the qualitative improvement of education have been rather less spectacular, but they also show the same blend of success and failure. I do not share the pessimistic view that, in the last twenty years, educational standards have steadily declined. In my opinion, the qualitative improvement of education shows a mixed picture of light and shade—brighter in some areas and darker in others. It is true that there has been an increase in the number of sub-standard institutions and of students with sub-standard attainments. But considerable improvements have been made in the teaching of several subjects, especially in science and the professions. What is even more important, good institutions and first-rate students are now more numerous and qualitatively as good as ever, if not better.

What has been the role of planning in these efforts at the qualitative improvement of education? I am afraid the educational planner has, on the whole, been far less successful in planning programmes of qualitative improvement than those of expansion. In all the three Five Year Plans, programmes of qualitative improvement received a low order of priority and a small allocation of funds. If the determination of proper priorities is the essence of educational planning, this comparative neglect of quality should be regarded as a major weakness. What is even worse, the fundamental difference between the planning of expansion and that of qualitative improvement was largely ignored by our educational planners. Planning for expansion is a comparatively simple matter and mostly reduces itself to the provision of funds for establishment of new educational institutions, the appointment of additional teachers, construction of buildings or provision of equipment. In other words, if additional funds are available, nothing is easier than to plan for expansion. But the planning for quality is totally different and makes far more demands on human effort and ingenuity than on fiscal or material resources. In the last analysis, the quality of education depends on teachers, on their sense of dedication to the pursuit of truth and excellence and on their identification with the interests of the students committed to their

charge. To get teachers of high quality and to motivate them properly needs money no doubt; but it cannot be done by money alone. Quality of education also depends on such programmes as improvement of curricula and text-books, adoption of modern methods of teaching and evaluation, improvement of supervision, and creation of a climate of dedication and hard work. These programmes need human effort rather than monetary investment; and in planning and implementing them, money can only play a minor role. Unfortunately, our planners in the past developed an 'expenditure-oriented' system of educational planning in which greater emphasis is laid on the expenditure of money than on human effort. Consequently, the success they obtained with programmes of qualitative improvement was inevitably less conspicuous than with programmes of expansion.

#### IV. EXPENDITURE ORIENTATION OF OUR EDUCATIONAL PLANS

What do I mean by the expression 'expenditure-orientation' of our educational plans? It really implies an over-emphasis on money based on the naive belief 'that there is no defect in education that more money cannot set right'. It is true that all educational plans will have financial implications and will need some investment of money for their implementation. But there is a world of difference between an educational plan which has financial implications and a basically financial plan which proposes to incur a given expenditure of money on certain educational programmes. In fact, this difference is as wide and as fundamental as that between 'eating to live' and 'living to eat'. We have not realised this basic difference and have given an unusual expenditure-orientation to all our plans. The cost of the plan, rather than its content, has become more important to us and a more integral part of our thinking on the subject. We consider that the second plan was 'better' than the first because it was 'bigger' in financial terms. The third is considered better than the second for precisely the same reason. I heave a sigh of relief because the old fourth plan is now dead and gone. But it was considered to be the best of all because it provided for an expenditure which was larger than all the three plans put together. The

assumptions implicit in this mode of thinking are obviously not valid; but we continue to accept them and to build on their foundations. Consequently, we were fairly successful in implementing simple expansion programmes which depend essentially on monetary investment, such as the establishment of new institutions, appointment of additional teachers, revision of teachers' salaries, construction of buildings or purchase of equipment. But when expansion programmes had other dimensions that could not be met by expenditure of money alone, our successes have been limited. For instance, we have not succeeded well in adult literacy programmes in which the basic problem is to motivate the adults to learn and this cannot be done by money alone. At the primary stage, we have failed even more miserably in reducing wastage and stagnation because these programmes need human effort rather than money. Similarly, we have not succeeded in restricting enrolments at the secondary and university stages because this needs a changing of public attitudes rather than expenditure of public funds. We have also not been able to give a good account of ourselves in programmes of qualitative improvement where, by and large, money plays a minor role. Other examples of this weakness can be readily given, but are hardly needed. I am, however, tempted to quote one of our able Vice-Chancellors with whom I was discussing this problem. He said that insofar as his university was concerned, the one recommendation of the Commission which needed the largest financial investment—the revision of teachers' salaries—had been fully implemented. But other recommendations which involved human effort rather than expenditure such as examination reform, revision of courses, teacher-student contact, etc. were at a preliminary stage of consideration and that he hoped 'something would be done someday'.

What I have said is enough to clarify the point I am making: we have been able to achieve, by and large, what could have been achieved by expenditure of money. But where such expenditure of public funds had to be supplemented by expenditure of thought or by human effort, we have not been able to rise to the occasion and the results have been rather indifferent. Unfortunately, it is much easier to spend money rather than thought, especially if it is somebody else's money.

But unless one spends thought, no really worthwhile results can ever be obtained. Rich countries sometimes try to make up for the shortages of intellectual inputs by investing larger amounts of money. But a poor country like ours cannot afford this luxury. It will either have to make up for the shortages of physical and monetary investments by larger inputs of human effort or be content to be swept aside by the strong currents of history.

I consider this weakness—the expenditure-orientation of our plans—to be fundamental. If it is remedied, we shall get a much better return, not only for the additional funds we invest in education, but also for the high level of investment which has already been reached. But if it is not remedied, any further monetary investment in education will largely add to the existing wastage. But when I say this, I should not be misunderstood to suggest that education received plenty of funds in the last eighteen years. My definite view is that education has been comparatively starved for funds in all these years and that it has been accorded a low priority. But I do mean that the resources we did get were not properly utilised and that they could have been used to much better purposes. I should also not be understood as suggesting that education can be expanded or improved without money. If we have to create a national system of education, adequate in quantity and quality, to meet the needs and aspirations of the people, our investment in education will have to be increased several-fold. But the point I am driving at is this: while emphasising the need for additional funds, we should also emphasise two other points:

(1) Education cannot be improved by money alone; and the adage that there is nothing wrong in education that more money cannot set right is not only fallacious, but actually dangerous.

(2) Money plays only a minor role in the most crucial sectors of educational improvement and factors like human effort and ingenuity assume far greater significance.

No country can afford to ignore these non-monetary essentials of educational progress, and least of all a poor developing country like ours. The first major weakness of our system of educational planning has been that we have neglected them

too long in the past. It will simply be disastrous to continue to do so, especially because the availability of the resources themselves has become so limited.

#### V. A BROAD-BASED PLANNING PROCESS CONSISTING OF INTEGRATED PLANS AT THE INSTITUTIONAL, DISTRICT, STATE AND NATIONAL LEVELS

The second major weakness of our planning system is top-heaviness. Our planning process resembles an inverted pyramid because so much of it is being done at the top and so little at the bottom. As you all know, educational planning is mostly done at present at the Centre—in the Planning Commission and in the Ministry of Education. It is also done, to some extent, in the State Education Departments and there is a small cell in each Directorate to look after the preparation and implementation of educational plans. Because of the developmental grants given by the University Grants Commission, there is some attempt at planning—although often *ad hoc* and perfunctory—in the universities also. But there is hardly any planning at any other level. There are no district plans and, what is worse, no plans for individual educational institutions. In other words, our planning started at the top—in Delhi—and started to descend downwards at so slow a pace that, in the last eighteen years, it has come down to one more level only and has reached the State capitals or university headquarters. It has still a long way to go to reach the district level and even longer to reach individual institutions.

This top-based approach to educational planning has three main disadvantages. The first is that it is peripheral and does not involve the crucial areas in educational development. The educational process takes place in the classroom and hence the core of any educational plan should be the plans prepared by each educational institution. It is only these plans that can adequately deal with such basic educational issues as individual attention to students, improvement of curricula, adoption of modern methods of teaching and evaluation, intensive utilization of available facilities, or establishing close contacts with the local community through programmes of mutual service and support. I refuse to believe that one educational

institution can be just like any other. In my view, each educational institution should have a unique personality of its own—like each individual student. It should therefore be encouraged and assisted to plan its own individual development and on the best lines possible. It is only these institutional plans that can provide scope for initiative, creativity, freedom and experimentation on the part of institutions and teachers. I know that several good institutions do have such plans even now—in fact, the existence of such plans is one of the major factors that helps them to cultivate excellence. But the formulation of such plans has not become a general movement that covers all educational institutions and such institutional plans do not yet form the basis of plans at higher levels. We do not even have district plans in which the local community can be effectively associated with schools. In the absence of such institutional and district plans, planning at the State and national levels can only remain peripheral.

The second disadvantage of planning from the top is that it tends to be expenditure-oriented. As I have shown earlier, the plans become basically educational and programme-oriented at the institutional level. At the district level, they still continue to remain largely so but develop some expenditure-orientation. At the State and national levels, they become mostly expenditure-oriented because the Central and State Governments have the responsibility to finance education and the most common questions raised and discussed at these levels are generally two: (1) How much can the Government provide for education, and (2) how will the allocation be spent? If this expenditure-orientation which our plans have received in the last eighteen years is to be corrected, it is essential to initiate a process of planning from below—from the individual institutions and districts—and then supplement these plans with those at the State and national levels.

The third disadvantage in this process of planning from above is that it does not involve the willing and enthusiastic participation of important groups—inspecting officers, teachers, parents and students. My criteria of a good educational plan is that it must be known to all inspecting officers and teachers (and wherever necessary, to parents and students also), that it must be able to secure their full co-operation

and that it must assign specific responsibilities and duties to each teacher and inspecting officer. This does not happen at present. I have, for instance, tried to find out how many teachers and inspecting officers know about the educational plans. These are of course known to the Planning Commission, the Ministry of Education and the Directorate of Education in the States. I have found that the District Officers generally know little about them and the subordinate inspecting officers as well as secondary and primary teachers hardly know anything. How can a plan which so few know about and in which the average teacher and inspecting officer has so little to do can ever be implemented? If, on the other hand, plans for individual institutions are prepared, each teacher and inspecting officer will have some specific tasks to do and so will most parents and students. The plan could then be a truly national plan and will stand a good chance of being implemented satisfactorily.

*Institutional Plans:* A major reform I propose therefore is that the present planning process which resembles an inverted pyramid should be broad-based and decentralised by introducing the system of institutional plans. In every university, there should be an academic planning board set up on the lines recommended by the Education Commission. Every educational institution should be required to prepare and implement fairly long-term plans of its own. These plans, let me emphasise, should not be like 'charters of demands' which emphasise the physical and other needs of the institution and the funds required to meet them. On the other hand, they should be like practical and pragmatic programmes of action which emphasise the best utilisation of the available facilities and emphasise human effort. They should also not be grandiose or dreamlike. In fact, in the preparation and implementation of such plans, our motto should be: 'not low aim but failure is a crime'. In my view, we wrongly interpret the principle that not failure, but low aim is a crime. It makes us prepare high-sounding plans which look grand on paper and which enable us to escape from the hard realities of life into a utopian dream-world of our own creation. What is worse, this principle also enables us to accept a failure as something that is an inevitable and not necessarily dishonourable

aspect of such plans and provides us with a psychological defence mechanism against ineffective implementation. But as you all know, this policy arouses the hopes of the people to unnecessarily high levels in the first instance and then throws them to the ground with a vengeance. It is this gap between promise and fulfilment that is largely responsible for the present mood of frustration in the public mind. I would therefore like this process to be reversed and insist that, in future, we should prefer a humble and prosaic plan that is faithfully implemented to a grandiose one which is not or even cannot be implemented in full. This new discipline of thought has to be adopted in planning at all levels. But there is absolutely no escape from it at the institutional level.

Several steps will have to be taken if this basic idea of institutional plans is to be successfully developed. Some of the more important of these are the following:

(1) The State Education Departments should be oriented to a new mode of thinking. Their present insistence on rigidity and uniformity should be abandoned in favour of an elastic and dynamic approach. They should also encourage initiative, creativity, freedom and experimentation on the part of institutions and teachers. It should be their responsibility to identify good schools and to give them greater support and large freedom to enable them to become better while, at the same time, providing the necessary guidance and direction to the weaker institutions with a view to enabling them to be good.

(2) It will be necessary to orientate officers of the Department as well as heads of educational institutions in the preparation and implementation of such institutional plans.

(3) The grant-in-aid rules should be modified from two points of view:

(a) The first is to provide adequate freedom to schools to make decisions on their own. This can be secured by instituting an 'Education Fund' in each institution consisting of donations and contributions raised from the local community and, in the case of educational institutions other than primary schools, a 'Betterment Fund' levied from the students in a manner prescribed by the Government.

To stimulate the development of such funds, the State should provide a grant-in-aid on the principle of equalisation. The entire proceeds of the fund should be available to the institution for its own development, either by providing new services or by expanding existing ones.

(b) The second principle of reforming the grant-in-aid system would be to encourage excellence. The grant-in-aid to educational institutions should be divided into two parts. The first is the ordinary maintenance grant given on some egalitarian principles which will ensure the payment of teachers' salaries and a certain minimum expenditure for other items. But there should also be a special 'Development Grant' given to institutions on the basis of their performance. This will promote a competition for excellence among the different educational institutions and lay the foundation of a movement which, in the course of time, would succeed in raising standards all round.

(4) The different educational institutions should help each other in developing this new concept of institutional plans. From this point of view, the programme of 'school complexes' recommended by the Education Commission deserves consideration. Under this programme, each secondary school will work in close collaboration with the primary schools in its neighbourhood and help them, through guidance services and sharing of facilities, to improve themselves. The same process can be repeated at a higher level between colleges and universities on the one hand and the secondary schools in their neighbourhood on the other. At present, the teachers at different stages of education are engaged in a dialogue of mutual recrimination and passing the buck. For instance, the universities blame the secondary schools for sending up weak students and the secondary schools pass on the blame to primary schools. The programme of school complexes recommended by the Education Commission will put an end to all this and bring the different stages of education together in a programme of mutual service and support.

(5) A deliberate policy to encourage the pursuit of excellence will have to be adopted. At the school stage, good schools should be allowed to develop into 'experimental schools' and freed from the shackles of external examinations.

A similar step should be taken at the university stage by the development of 'autonomous colleges' or a more liberal exercise of the authority vested in the Government of India to declare institutions as 'deemed universities'. Encouragement and assistance should be given to outstanding departments of universities to grow into Centres of Advanced Study and in some universities at least, clusters of Centres of Advanced Study should be built up in related disciplines that strengthen and support one another.

*District Plans:* To strengthen the planning process, these institutional plans will have to be supplemented by the preparation of plans of educational development at the school stage in each district. The State is a fairly convenient unit for the planning of higher education, although some planning of higher education will also have to be done at the national level. But it is too big and inconvenient a unit to plan at the school stage. It would, therefore, be desirable to accept the recommendation of the Education Commission that District Education Boards should be created in every district to look after all education below the university level. Even if this recommendation is not accepted, or accepted only in a modified form, there is still no escape from treating the district as the principal unit for administration, planning and development of school education.

(a) This reform has become inevitable on grounds of sheer expansion. In 1882, educational expenditure in the country as a whole was about Rs. 1.8 crore. Today, the expenditure on education in an average district is more than Rs. 2 crores and the educational facilities provided therein are almost as large as they were in some States in 1882.

(b) The reform has also become necessary for effective administration and better public relations. It is only from the district level that adequate extension services can be provided to schools and it is again at this level that an effective link-up can be established with the local community.

(c) Yet another reason can be given in support of the programme. Studies made by the Education Commission show that there are very wide variations in educational development between one district and another. In fact, these are far wider than those at the State level. It therefore becomes very

necessary to treat the district as a unit of development with a view to reducing the regional imbalances.

In my view, we should move toward a situation where the District Education Officer becomes virtually the Director of Education for the area and can take effective and final decisions in all administrative and financial matters and provide the necessary guidance and extension services to schools within his jurisdiction. The Directorate of Education—there may be Divisional Offices between the districts and the Directorate in large States—should largely confine itself to matters of policy, general co-ordination and maintenance of State level organisations for qualitative improvement.

*State Plans:* The planning at the State level will also have to be radically reoriented. Since education is a Constitutional responsibility of the States, effective educational planning can only be done at the State level. At present, elaborate educational plans are prepared at the national level and there is no corresponding activity at the State level. Let it be clearly understood, however, that our national educational plans do not have any real meaning in practice because the conditions vary largely from State to State, because each State is at a different level of development and because the priorities to be adopted in the immediate future vary immensely from one State to another although the ultimate objectives towards which they are all moving might be very similar. It is, therefore, necessary to take the State as the fundamental unit in educational planning. Each State should prepare the perspective plan of long-term development spread over 15 to 20 years; and against this background, it should draw up the new Fourth Five Year Plan which will begin in 1969-70. Each State should also provide a statutory basis for education by passing an Education Act. What I would propose is that in the course of the next four or five months, each State should prepare a white paper on educational development within its area, publish it for eliciting public opinion, and place it before the legislature for discussion and approval. In the light of this finalised white paper, an education bill should be introduced and passed into law before the end of the year.

It may be asked whether this is the right time to take such far-reaching measures. My answer is that these steps have to



be taken right now without any delay. Let us remember that England published a white paper on educational reconstruction in 1943 and passed an Education Act to give effect to its proposals in 1944. These were dark days for Britain, when the Second World War was at a fever pitch and no one was sure how and when it would come to an end. The present conditions in India are certainly not so dark; and our need for such educational planning is even greater.

*Planning at the National Level:* If plans on these lines are prepared at the institutional, district and State levels, educational planning at the national level will have to be correspondingly altered. In my opinion, we do too much of detailed planning at the national level at present. This should cease and in future, the main tasks to be attempted in planning at the national level should be the following:

- (a) Announcing a National Policy on Education which would give a broad directive to State Governments, local authorities and educational institutions in preparing and implementing their plans;
- (b) Provision of guidance to State Governments in the preparation, implementation and evaluation of plans;
- (c) Coordination of State Plans;
- (d) Implementation of a few schemes of national significance selected in consultation with the States, in the Central and the Centrally sponsored sectors and particularly in the field of post-graduate education and research;
- (e) Defining minimum targets of national achievements in various sectors from time to time and assisting the less advanced States to reach them; and
- (f) Provision of financial assistance.

This is the picture I have of a broad-based decentralised process of educational planning which we should strive to create in the country over the next five years to replace the existing system of top-based and centralised educational planning with its emphasis on the national and State level plans.

#### V I. WANTED: A SWADESHI MOVEMENT IN EDUCATION

The third major weakness of our educational planning has been an over-dependence on foreign expertise for ideas and

programmes and, to some extent, even for financial support. This is not a new thing in our educational history. Prior to 1947, we showed an over-dependence on England and for precedents from British experience. In the post-Independence period, our dependence on England has been reduced to some extent, no doubt. But the attitude of dependence still continues to dominate our thinking and has transferred itself to the US, especially because US advice and expertise are often accompanied by liberal financial assistance. The results of intellectual dependence on others, whatever the country of dependence or the reasons therefor, can only be disastrous and they have been so.

One obvious point here is that it is not generally desirable to link 'ideas' with 'money' in programmes of aid because such linkage tends to distort priorities in educational planning and often leads to indifferent implementation. If only ideas are given, there is a chance that they may be examined seriously and, if found convincing, resources will be found to implement them. Similarly, if only funds are given, there is a chance that the problems concerned may be examined earnestly and that the funds may be applied to programmes which have a genuine priority from the donee's point of view. But the linking of funds with ideas makes a donee often accept a weak scheme which someone else thinks good for him and which he would not have accepted if it had not been sugarcoated with financial assistance. It also places the donor in a somewhat questionable position wherein he can sell his ideas, not on the basis of their intrinsic merit, but with the help of the money that he promises on their behalf. It is therefore hardly a matter for surprise if some of these finance-bolstered schemes are implemented indifferently in practice and if they are even discontinued when the aid comes to an end. This is a fairly common experience, not only in the field of international aid, but also in the sphere of Central aid to States under the Centrally sponsored programmes.

But it is not merely this link between 'money' and 'ideas' that is wrong. What is far more harmful is our over-dependence on foreign experts and aid which necessarily implies a corres-

ponding lack of confidence in ourselves. It is this attitude that creates problems and I am convinced that unless we have a 'Swadeshi' movement in education in its proper sense, the large-scale reorganisation of education that the country needs will not be feasible. I therefore propose to elaborate this point in some detail.

When I condemn an over-dependence on foreign expertise, I should not be misunderstood as being chauvinistic. I do not hold the view that India has nothing to learn from other nations. On the other hand, I am conscious of the many advantages we can have by a close study of the experiences of other countries. But in doing so, I will not be a party to cheap, facile imitation of the practices in other countries which do not solve any problems. I have also no patience with those policies which assume that India shall for ever remain at the receiving end of the pipe-line of the world's knowledge and wisdom. On the other hand, I believe that the proper role of India in the international academic community is that of an equal among other equals—creating, giving and receiving. I am therefore pained to see an over-dependence on 'imported experts'—the UNESCO definition of an expert is a person who flies over your country during the day-time—who know little of our situation, who frequently are not in a position to offer any worthwhile advice, and whose principal achievement is that they manage to build up a nodding acquaintance with our problems by the time their assignments come to an end. In fact the right policy to be adopted in this respect is that advocated by Mahatma Gandhi who wrote, 'I do not want my house to be walled in on all sides and my windows to be stuffed. I want the cultures of all lands to be blown about my house as freely as possible. But I refuse to be blown off my feet by any. I also refuse to live in other people's houses as an interloper, a beggar or a slave.' While therefore one is welcome to make the widest possible use of the experience of other people in educational development, there is just no escape from the hard and original thinking that we must do for ourselves in order to evolve appropriate solutions to our educational problems which, in a number of ways, are unique. But unfortunately,

we have frequently tried to avoid this 'responsibility to think' by leaning too heavily upon foreign consultancy.

An important aspect of the Swadeshi movement in education, therefore, is to base our programmes of educational development on indigenous, creative and original thinking. Several arguments can be advanced to support this need. Educational practices and programmes do not lend themselves easily to transplantation from one social milieu to another because such a transplant is more like the transfer of parts from one human body to another than like the transfer of spare parts from one motor car to another. Moreover, there is a strong temptation to imitate marginal practices or programmes which achieve no worthwhile results rather than the basic and essential things. For instance, an Indian wanting to be like an Englishman will not strive to imbibe his many qualities of head and heart but would rather start—and probably also end—by imitating his dress and table manners. We must not also forget that our problems are so unique in their complexity, magnitude and difficulty that it would be idle to look elsewhere for precise solutions that can be imported with ease. What we really need, therefore, is not an exact or modified imitation of a practice or programme developed elsewhere, but the evolution of new and unorthodox programmes which are based on a deep study of our own conditions and needs and which are a unique blend of many carefully selected experiences from different situations. In the devising of such solutions, a foreign expert invited to advise is obviously at a disadvantage because, however well he may be acquainted with his own social milieu and its programmes, he lacks that intimate understanding and knowledge of Indian conditions which is so essential to success in this regard.

Let me, by way of illustration, enumerate some of the major programmes of educational reconstruction which we have tried in the post-Independence period and which have obviously been influenced by foreign advice and supported by foreign assistance. These have dominated the field of secondary education, had no impact on primary education, and only a limited influence on higher education. They include: (a) the establishment of Janata Colleges on the model of the

Folk High Schools of Denmark; (b) the introduction of 'general science' and 'social studies' in the curricula of secondary schools; (c) the scheme of multipurpose secondary schools; (d) examination reform with particular reference to the development and of new type tests; (e) the development of audio-visual aids; (f) the development of educational and vocational guidance programmes; (g) the establishment of extension centres in training institutions; (h) the starting of integrated courses of general education and teacher training at the first degree stage as in the Regional Colleges of Education; (i) the introduction of general education courses at the university stage; and (j) the establishment of agricultural universities. The success that has attended these programmes has varied. Some have largely failed, e.g., the Janata Colleges. On some others, there has been considerable rethinking, e.g., the introduction of general science and social studies in the curricula of secondary schools or the programme of multipurpose schools. Some are extremely unsuited to the Indian situation and ought not to have been imported at all, e.g., the integrated courses of general education and teacher training. Some others have obviously a much lower priority in our situation, e.g., development of audio-visual aids and educational and vocational guidance. A careful evaluation of these programmes brings out the point that even when taken in their entirety, they remain mostly peripheral and do not touch the heart of the problem of educational reconstruction which we have to face. What is even more important, it can be shown that in almost every case, their success is in proportion to the depth of thinking brought to bear on their adaptation to Indian conditions.

I would like to supplement these observations with three others. The first is that this over-dependence on foreign expertise and precedents often gives a wrong lead to our educational development. For instance, Sir Eric Ashby has pointed out that some of the major weaknesses of our system of higher education arise from the fact that it was based on decisions, made rather unimaginatively between 1835 and 1854, to extend the British and European system of education to India. 'To exclude from university studies for half a

century the whole of oriental learning and religion and to purvey to Hindus and Muslims a history of philosophy whose roots lie exclusively in the Mediterranean and in Christianity; to communicate the examinable skeleton of European civilisation without ensuring that the values and standards which give flesh to these bones are communicated too; to set up the external paraphernalia of a university without the warmth and fellowship of academic society: these are the handicaps against which Indian universities are still struggling and which prevent the university from becoming the centre and focus of India's intellectual life.' Similarly, our system of secondary education has grown the way it did largely because its content was modelled on grammar schools of England of the early nineteenth century; and so on. An imitation of others is generally a weak instrument of self-development, even when it is carefully planned and efficiently carried out. But when it is not—and the odds generally are against its being so—the results can be disastrous.

My second observation is that this over-dependence on external precedents often leads to a neglect of basic issues in our educational reconstruction. For instance, a very important reason for our failure to provide free and universal primary education for all children is our unwillingness to accept a larger pupil-teacher ratio or a bigger class size that would be in keeping with our level of economic development and birth-rate. In the industrially advanced countries, the class sizes are now small, mainly because they have larger resources to invest and a comparatively small number of children to be educated. We do not make adequate allowance for this difference in the socio-economic background and hold up a small class as an educational objective of great significance, adopt teaching methods which are suited only to small classes and do everything in our power to make the teacher hostile to the bigger classes and incapable of dealing with them. In actual practice, however, we compel them to work in big-size classes—one cannot just wish away the hard economic realities—and the results are disastrous. The one way out of the situation is deliberately to adopt a larger pupil-teacher ratio and to develop teaching methods appropriate to such classes. But this problem has hardly received any

attention among our educationists. The same can be said of scientific research as well. What we generally attempt is fashionable or prestige research which means the research that is now being attempted in the industrially advanced countries and which is, therefore, relevant to their socio-economic conditions rather than to ours. We do not undertake utilitarian research which will invariably be related to our socio-economic conditions because it has no counterpart in the advanced countries of the world to which we look for inspiration and guidance. Several other examples of this type can be easily given.

My third observation relates to our pathetic dependence on outsiders in an important programme, the preparation of text-books in higher education. What we need is text-books written with the help of Indian materials and Indian experience so that the education which a student receives becomes meaningfully related to the environment in which he lives. Instead of striving our best to produce such text-books, however, we still depend largely on foreign text-books with results that are far from happy. The prices of these books have gone up, especially after devaluation, and their import is becoming more and more difficult owing to the paucity of foreign exchange. The teachers and the students, therefore, cannot afford to have books to any appreciable extent. Moreover, the contents of the books that we import in the social sciences are generally unrelated to Indian conditions. Many teachers and students have told me, for instance, that the books they use in subjects like politics or economics or sociology will have to be almost totally re-written to make them useful in Indian universities. Some teachers of veterinary science have told me that the animal anatomy and physiology we teach in these institutions is still centred round the horse—the farm animal of the West—whereas what we need is a programme of instruction centred round the cow or the bull. Several doctors have also told me that they would like to have text-books on medicine written by Indian authors and with special reference to Indian conditions. Such examples may be easily multiplied. We shall have to produce text-books in English—and we shall need them for years to come—written by Indian authors and deliberately oriented to Indian conditions. This effort will be-

come greater and inescapable when the regional languages are adopted as media of education at the university stage. But this is just the effort that we do not undertake at present.

One could have understood this over-dependence on external experience and precedents in the days before 1937 when educational policies were largely determined by British officers working in India. What pains one, however, is the fact that, in spite of the lapse of thirty years and the attainment of Independence, this over-reliance on outsiders still continues to dominate the scene. The principal reason for this, as Professor Edward Shils has pointed out, is that 'the centre of gravity' of the Indian academic community is *outside* India. Our educationists tend to look outside India for judgment of their work, for the intellectual models of the problems which they study, for the books they read and for their forum of appreciation and approval. Unless this is changed and unless Indian educationists develop self-confidence and undertake the responsibility of doing hard, original and creative thinking, there is no hope of finding an early and satisfactory solution to our problems.

What I have said here about intellectual dependence on others applies *mutatis mutandis* to financial dependence or programmes of foreign aid as well. I hold that the present level of foreign assistance to India, or to most developing countries, is far too inadequate and that its quantum has to be increased very substantially. But I also feel that the utilisation of even the small foreign aid that is now available leaves a good deal to be desired and changes are needed in the attitudes and policies of donor as well as the receiving countries.

(a) I would not like the donor countries to tie up their aid to specific objectives. They should, by and large, leave the receiving country free to decide its own priorities. I would also like to see a big aid programme developed to cover services of outstanding teachers. With regard to equipment, I would seek assistance for machinery and know-how to produce as much equipment as possible within the receiving country itself. I would also like to recommend a very large programme of aid in the form of supply of books or assistance for their production. Many a developing country is not in a

position to produce a large part of the books it requires on account of the international copyright conventions which are tending to become one of the biggest obstacles to the free flow of knowledge across international frontiers. Several developing countries are therefore being driven to a point where they might be compelled to opt out of these conventions. A more honourable way out of this situation for all concerned is for the advanced nations to give full authority to the developing countries to reproduce any books or part of books written by their citizens, to pay the royalties involved direct to the authors concerned, and to treat the amount as aid given to the developing country.

(b) The receiving countries also will have to change their attitudes to foreign aid. The first and foremost precaution they should take is to ensure that foreign aid does not distort their priorities in planning. In other words, they should not accept aid for any programme which they would not be prepared to undertake with their own resources and on a priority basis. What is even more important, they should look upon foreign aid in financial terms as a necessary and transitory measure and should try to become self-reliant by doing away with all foreign aid whatsoever in as short a time as possible. In other words, they should scrupulously observe the dictum that the objective of foreign aid is to help the receiving country to be self-sufficient and that aid should be received in the present only to eliminate all need for aid in the future. Secondly, the developing countries must also be on guard against the corrupting influence of foreign aid. As fire flares up when fed with fuel or desire increases with every attempt to satisfy it, dependence on foreign aid tends to deepen with the passage of time. Foreign aid thus has a tendency to perpetuate itself and to make the receiving country less self-reliant. From this point of view, I am not sure whether the adoption of Professor Dandekar's thesis that self-sufficiency is a strategy and not an objective of development would not ultimately be in the larger interests of the country.

A Swadeshi movement in education therefore does not mean chauvinism or intellectual isolation or breaking away from the stream of international life. But more than anything

else, it means (a) a shift in the 'centre of gravity' of our academic life inside the country; (b) hard, original and creative thinking to devise appropriate solutions to our problems; (c) an intensive effort to produce most of the textbooks we need; and (d) to receive aid, if necessary at all, as a transitory step that will ultimately eliminate all need for external assistance. Such a movement must form the very basis of the fourth and subsequent plans.

#### VII. TRANSFORMATION OF THE EDUCATIONAL SYSTEM

The fourth major weakness of our educational planning is that it has, by and large, neglected the urgent problem of transforming our educational system to suit the life, needs and aspirations of the people so that it becomes an important instrument of national development. This is so major an issue that it needs examination in detail.

Education has been used to serve three inter-dependent purposes:

1. it may be regarded as an academic discipline and used to preserve knowledge and culture as well as to increase knowledge and to enrich culture by training men and women to develop a competence for and a commitment to the pursuit of truth and excellence;
2. it may be utilised to draw out the best in every child and to help each individual to develop his potential capacities to their fullest and to attain self-knowledge and self-fulfilment; and
3. it may also be used as a powerful instrument of national development which would enable the people of a country to meet their challenges and to realise their aspirations.

The first two of these purposes have been emphasised from times immemorial. But the third has come into prominence only in the present century. The socialist countries in particular have shown how a planned, deliberate and effective use can be made of education for purposes of national development. This recent thought is obviously of immense significance to all developing countries; and most of them are now striving to create national systems of education which would

help them effectively to meet their needs and to realise their aspirations.

Prior to 1947, the idea of a national system of education for India remained largely non-official. The British Government did not look upon India as a nation, and their educational objectives were limited by their emphasis on imperial interests and on non-interference with the social, religious and cultural life of the people.

The nationalist leaders, however, started demanding a national system of education in the early years of this century and the Calcutta Congress of 1906 resolved that the time had arrived "for the people all over the country earnestly to take up the question of national education, for both boys and girls, and organise a system of education—literary, scientific and technical—suited to the requirements of the country, on national lines and under the national control and directed towards the realization of national destiny." In the following years, the concept of national education was clarified and further developed by several writers such as Dr Annie Besant, Gopal Krishna Gokhale, Lala Lajpat Rai, Rabindranath Tagore and Mahatma Gandhi. A national system of education, it was argued, should

- (a) promote national consciousness and inculcate a deep love of the motherland, a proper pride in its past glories and a strong confidence in its future;
- (b) be controlled by Indians, shaped by Indians and carried on by Indians;
- (c) uphold Indian ideals of devotion, wisdom and morality and be permeated by the Indian religious spirit which is spacious, tolerant and all-embracing and which recognises that man goes to God along many roads and that all prophets came from Him;
- (d) emphasise science, scientific research and vocational education to help economic growth with a view to eliminating poverty and providing a decent standard of living for all; and
- (e) be imparted through the languages of the people, the over-emphasis on English being reduced side by side with a more intensive cultivation of other international languages.

Two intensive efforts were made to spread national education on a large scale—the first following the partition of Bengal in 1904 and the second, as a part of the non-co-operation movement in 1931. For various reasons, both these efforts failed and until 1947, the programme of national education was confined to a few educational institutions like the Gujarat Vidyapeeth which chose to remain outside the official system of education.

With the attainment of independence in 1947, it was felt that the entire official system of education should be transformed on the broad principle of national education which had been enunciated earlier. Even as early as in 1948, Pandit Jawaharlal Nehru had observed, in his address to the Educational Conference convened by the Ministry of Education in 1948: 'Whenever conferences were called in the past to form a plan for education in India, the tendency as a rule was to maintain the existing system with slight modifications. This must not happen now. Great changes have taken place in the country and the educational system must keep pace with them. The entire basis of education must be revolutionised.' Unfortunately this suggestion was not taken seriously and all that happened was a mere expansion of the system that had come down from the British days, with a few marginal adjustments here and there. The Education Commission therefore, found even in 1966, that our system of education which had been originally designed to meet the needs of an imperial administration within the limitations set by a feudal and traditional society had remained largely unchanged in character and that it would need radical changes in objectives, content, teaching methods, programmes, composition of the student body, selection and preparation of teachers and in organisation, if it was to be made to serve the purposes of a modernising, democratic and socialistic society. The Commission also pointed out that this programme of the transformation of the educational system to meet the needs of national development is of paramount urgency. 'Traditional societies', it said, 'which desire to modernise themselves have to transform their educational system before trying to expand it, because the greater the expansion of the



traditional system of education, the more difficult and costly it becomes to change its character.' This, in fact, may be described as one of the unique contributions made by the Education Commission. So far, we had talked of educational reconstruction consisting mainly of two categories of programmes—expansion and qualitative improvement. The Education Commission has added a third and very important dimension to this discussion, namely, the transformation of the educational system for purposes of national development. It is, therefore, in the fitness of things that its Report has been given the subsidiary title: EDUCATION AND NATIONAL DEVELOPMENT.

What are the basic programmes which will transform the existing system of education and make it more intimately related to national development? According to the Education Commission, these are the following:

(1) Education should deepen national consciousness and promote national integration; curricular and co-curricular programmes should be designed to promote a proper understanding and appreciation of our cultural heritage, a greater knowledge, understanding and appreciation of the different regions of the country, and faith and confidence in the future;

(2) The common school system of education should be adopted at the primary stage to put an end to the segregation that now takes place between the schools for the 'haves' and the schools for the 'have-nots';

(3) There should be a great emphasis on science education; science should become an integral part of general education till the end of class X and its quality should be improved at all stages; scientific research should be promoted and related more intimately to the development of agriculture and industry;

(4) Work-experience and national or social service should become an integral part of education at all stages;

(5) Secondary education should be vocationalised and made largely terminal;

(6) Professional education should be expanded and improved at the university stage;

(7) An appropriate language policy should be developed which should include, among other things, programmes for the development of modern Indian languages and their use as media at all stages of education, a more intensive cultivation of international languages other than English, and promotion of inter-regional contacts through a more intensive study of all the modern Indian languages in each linguistic region;

(8) The school and the community should be brought together in programmes of mutual service and support;

(9) The educational level of the common citizen should be substantially raised by liquidation of adult illiteracy and provision of good and effective primary education to all children; and secondary and higher education should be so developed as to create an intelligentsia, adequate in size and competence, and drawn from all social strata; and

(10) Emphasis should be placed on character formation, on the cultivation of moral and spiritual values and on the development of a sense of social responsibility.

It is true that these programmes have not been totally neglected and that something is being done with regard to most of these. What is needed, however, is an intensive effort to develop them in a big way and in an integrated manner. In other words, these programmes should be at the core of the fourth and subsequent plans.

The implementation of these programmes which bridge education and life goes much beyond the formal system of education and requires active co-operation and collaboration between education, several other Departments of Government and persons engaged in different sectors of national life such as agriculture and industry. For instance, meaningful programmes of work-experience and social service can be developed only with the co-operation of the Department of Agriculture and Industry and of agriculturalists and industrial undertakings. Programmes of vocational, technical and professional education will also have to be developed through an intensive co-operation between educational institutions on the one hand and agriculture and industry on the other, in respect of the preparation of curricula and courses, prescription of standards,

exchange of teachers and provision of training facilities. The implementation of the new language policy also needs corresponding changes in administration and in the public service examinations; and so on. It is this aspect of these programmes which makes their implementation more complicated and difficult. But in view of their significance, we have to address ourselves to the solution of these problems and see that they are implemented effectively on a priority basis.

## 2

### PROPOSALS FOR THE FOURTH PLAN

#### I. CORE PROGRAMMES

I shall now turn to a discussion of another important problem, namely, the content of fourth and subsequent plans. I shall, in other words, deal briefly with an important question which is now being asked: what are the major programmes of educational reconstruction which should be emphasised in the fourth and subsequent plans, and how will they be different, and why, from those emphasised and included in the first three plans?

In my opinion, there are three major changes of policy needed in determining the content of the fourth and subsequent plans. Two of these have already been discussed. The first is that our emphasis will have to shift, by and large, from programmes of expansion to those of qualitative improvement and the second is to accord a high priority to the programme for the transformation of the educational system which has been the most neglected so far. The third is to adopt a 'selective' approach. A major weakness of our educational planning has been to adopt the 'comprehensive' approach—the trend to do something in every sector, however small. This is really an attitude of escapism from the difficult problem of deciding priorities. It also finds considerable support in the 'democratic' context. Almost every programme in education is essentially good and desirable and every such programme has some god-father or god-mother to support it. Consequently, the distraught Education Ministers are forced to adopt the comprehensive approach in an attempt to please all. What happens in consequence however is that the meagre resources available get thinly spread over an undesirably large area so that nothing worthwhile is achieved in any sector. An attempt which begins by trying to please all thus ends in disappointment to everyone. This is probably a major reason why our

educational programmes are criticised in almost every sector. It is, therefore, obvious that, in the days ahead, it would be better to give up this comprehensive approach and adopt the selected sector approach instead. In other words, we should try to accord priority to a few important sectors and concentrate on their development in a big way.

On the basis of these three important changes, I shall now briefly indicate the major programmes to be included in the fourth and subsequent plans.

*Core Programmes:* The first proposal I would like to make in this context is that the crucial programmes of qualitative improvement which need human effort rather than financial investment should form the 'core' programmes in the Fourth Plan. Among these, I would propose to include the following:

(1) *Revision of Curricula and Courses:* A major objective of this programme should be to orientate education to national needs. This would include programmes such as promoting national consciousness, emphasising character formation through cultivation of moral, social and spiritual values, improving science education, introducing work-experience and national or social service, stressing physical education, games and sports and developing a rich and varied plan of co-curricular activities.

At the school stage, there is an urgent need to upgrade and improve curricula, to increase their knowledge content and to provide adequately for the development of skills and the inculcation of right interests, attitudes, and values. It is also necessary to introduce courses at two levels—ordinary and advanced. At the university stage, the combination of subjects permissible for the first degree should be more elastic than at present and should not be linked rigidly with the subjects studied at school. There should be provision for general (pass and honours) and special courses. At the post-graduate stage, courses should be designed with three objectives: preparing teachers for schools; catering for the needs of students who are still interested in broad connected areas; and providing a high degree of specialisation.

(2) *Adoption of Improved Methods of Teaching and Evaluation:* This programme should be promoted through

research, improved supervision, in-service education of teachers, production of literature and establishment of subject-teachers' associations. A programme of high priority would be to improve the teaching of languages. It is also necessary, as recommended by the Education Commission, to establish a Bureau of Evaluation in each State to implement an intensive programme of examination reform in close collaboration with the National Council of Educational Research and Training. This programme should include, amongst others, the reform of external examinations, reduction in their numbers, early declaration of results, introduction of a system of internal assessment in all institutions and making it an integral part of the promotion procedures from class to class, and the maintenance of appropriate progress cards for all students.

(3) *Book Development Programmes:* These will include the following:

(a) The production of text-books in English and modern Indian languages which contain Indian experience and material, are written by Indian authors and are specially oriented to Indian conditions and the needs of the Indian students;

(b) Rationalisation and expansion of the book production schemes which are now being implemented in collaboration with friendly countries like the USA, the UK and the USSR;

(c) Further development of the programmes of text-book production for the school stage under the National Council of Educational Research and Training;

(d) Development of text-book production programmes for the school stage under the State Governments through the establishment of autonomous organisations and the development of research in curriculum and text-book production; and

(e) Preparation and publication of children's books of all categories, especially with a view to promoting national integration. These books should be produced simultaneously in all the modern Indian languages and should be priced exactly the same in every language. It is through them that

a good deal of common reading material will be available to every Indian child. This will promote national integration and help to raise and equalise standards in all parts of the country.

(4) *Supply of Text-books*: It is not enough to produce better text-books and supplementary reading materials. It is also necessary to ensure that these books become available to all students: this can be a major programme of qualitative improvement. At the lower primary stage (classes I-IV), arrangements should be made to supply free text-books and writing materials to poor and needy children. In the alternative, text-books and supplementary reading materials may be kept in schools and made available to the children during the school hour. In the higher primary and secondary schools, colleges and university departments, adequate text-book libraries should be built up to ensure that every student has reasonable access to all the text-books.

(5) *Reorganisation of the Administrative Machinery*: Programmes of reorganising the administrative machinery, both at the Centre and in the States, are crucial because the efficacy of planning and implementation will depend very largely on the efficiency of the Ministry of Education and the State Education Departments. The detailed programmes regarding this will be discussed in a later section.

All these programmes need better planning and human effort rather than any large-scale investment of resources in physical or financial terms. It will, therefore, be possible to provide adequately for them in the plans of all the State Governments, even within the comparatively limited resources that are likely to be available for the Fourth Plan. This is what we should strive to do.

*Mass Education & Adult Literacy*: The next order of priority will be programmes of mass education: the liquidation of adult illiteracy and the development of primary education. We should recognise that the most significant cut-off point in a nation's cultural and social life is where it emerges from illiteracy into literacy and that, in the long-run, there can be no better guarantee of continued social and economic change in the direction of democratic socialism than universal

literacy. Unfortunately, programmes of liquidating adult illiteracy were ignored in the last twenty years, presumably under the assumption that an early provision of universal and free primary education for all children till they reach 14 years of age, which was to have been provided by 1960, has not yet been realised and we may not be able to reach it for another twenty years. In the meantime, the ranks of the illiterate people in our midst are growing and today there are more illiterate people in the country than there were in 1947. It is thus obvious that in the next few years, we must address ourselves earnestly to the task of liquidating adult illiteracy. No effort or sacrifice can be too great for this purpose.

The following programmes should be developed for this purpose:

(a) Part-time literacy classes should be organised for children in the age-group 11-17 who have never been to school or have left it prematurely. Such grown-up children are found to become functionally literate in about a year. These classes should first be organised on a voluntary basis and should be made compulsory later on in the light of experience gained. They will effectively prevent fresh additions to the ranks of adult illiterates.

(b) The campaigns for liquidating adult illiteracy should be organised, both in urban and in rural areas. The *Gram Shikshan Mohim* (Village Education Drive) of Maharashtra provides a good example. These campaigns should also be developed as a part of the programme of national or social service at all stages of education, and especially at the university stage.

(c) An integrated programme of adult literacy and spreading improved agricultural techniques should be developed and tried out in rural areas, especially in those selected for intensive agricultural development.

*Mass Education: Primary Education*: Our approach to the problems of primary education also will have to be changed with a view to obtaining more meaningful results than in the past. The first obvious step in the programme would be to make primary education free in all parts of the country. The

Constitution directs that primary education should be made free and compulsory. Even if the 'compulsory' part of the programme will take a fairly long time for implementation, it should be possible and worthwhile to implement the 'free' part of this directive immediately. At present, primary education has already been made free in all States except four: Assam, Bihar, Uttar Pradesh and West Bengal. These State Governments should give top priority to this programme in their Fourth Five Year Plan.

I do not think it necessary to emphasise the 'compulsory' aspect of the programme of primary education. Every State in the country has now a law on the Statute Book which makes it compulsory for every parent to send his children to school and provides penalties for failure to do so. Although these laws have a utility of their own, they cannot be expected to play any major role in universalising primary education. Experience of compulsory education in the advanced countries of the world shows that compulsory education laws cannot be implemented when the people are poor and illiterate and that they are hardly needed when the people become literate and economically better off. The experience in India will also be similar. It would, therefore, be better not to over-emphasise the compulsory aspect of primary education and to concentrate on its universalisation instead.

The programmes of universalisation of primary education are of three types.

(a) The objective of the first is universalisation of facilities or the provision of a primary school within easy walking distance from the home of every child. This goal has been very largely reached in all parts of the country and the work that yet remains to be done is comparatively small and not likely to cost much. It would, therefore, be desirable to prepare plans, on the basis of the Second Education Survey, for provision of universal facilities for primary education and to implement them in full during the next five years.

(b) The objective of the second type of programme is universalisation of enrolment, i.e., to enrol every child in a primary school at the age prescribed for admission, generally six *plus*. At present, we have succeeded in enrolling most of the boys so that the vast bulk of the non-attending children

are girls, tribal children, and children of the poorest social strata such as agricultural labourers. During the next five years attempts should be concentrated on the enrolment of these non-attending children and suitable programmes for the purpose will have to be included in the Fourth Plan. In particular, special efforts will have to be made to provide facilities for part-time education for those children who have to work in or for their families and who cannot therefore attend schools on a whole-time basis.

(c) The third type of the programme refers to universalisation of retention i.e., to retain every child in school and to ensure that he passes regularly from class to class until he completes the primary course or reaches the upper age limit prescribed for compulsory schooling. It is in this regard that our system of primary education is the weakest. Of every 100 children that enter the primary school in Class I, about one-third drop off at the end of Class I and only about a one-third reach Class VII. The extent of stagnation also is very large. For the next ten years, therefore, our efforts will have to be concentrated on the reduction of these evils. We have been talking about them for nearly forty years, but very little has been done in practice to counteract them effectively. I think that programmes for this purpose should have a high priority in the Fourth Plan.

*Teachers' Status and Education:* The third priority in my proposals would be programmes for the improvement of teacher status and education. The scales of pay recommended by the Education Commission for the university and college teachers have already been approved by the Government of India and assistance is being made available to State Governments, on 80:20 basis, for implementing them. It is unfortunate that for one reason or another no effect has been given to these proposals in several parts of the country as yet. The scales of pay recommended by the Education Commission for school teachers have only been adopted in one or two States and a much greater effort is needed to give effect to them. This is especially so in States like Uttar Pradesh and Bihar where the existing remuneration of school teachers is on the low side. Since a Finance Commission has now been

appointed and will submit its report by the end of the current year, it is very necessary that all the States and Union Territories take immediate steps to improve the remuneration of teachers, both at the school and college stages, on the broad lines recommended by the Education Commission. If they do so, the Finance Commission would certainly take into consideration the financial liabilities on this account while formulating its proposals for allocation of resources or grants-in-aid. This is an opportunity which no State Government can afford to miss.

The picture regarding the general education and professional preparation of teachers shows immense variations from State to State. At the primary stage, for example, Kerala has all trained teachers, a two-year training course after the secondary school and fairly good standards in training institutions. West Bengal, on the other hand, has a large backlog of untrained teachers (about two-thirds), a one-year course of teacher education and comparatively unsatisfactory training institutions. In the general education of teachers, for instance, the qualifications are very high in West Bengal and comparatively very low in Maharashtra. It will, therefore, be necessary for each State to examine its own situation and prepare a detailed and realistic programme for the improvement of teacher education within its area, on the broad lines recommended by the Education Commission. By and large, the emphasis in these programmes should be on in-service education, correspondence courses, part-time training facilities in urban areas where they can be conveniently organised and improvement in the quality of training institutions. Each State should also establish a State Board of Teacher Education to supervise and assist in the implementation of these programmes.

*Secondary and Higher Education:* The fourth priority should be accorded, in my opinion, for programmes of secondary and higher education which, for several reasons, have to be considered together.

My first proposal in this regard is that it is not desirable to have an integrated single course of secondary education as recommended by the Mudaliar Commission. The practice in most advanced countries conforms to this. For example, in

the USA, the secondary course is spread over six years divided into two parts of three years each. The same is the situation in Japan. In England also, the secondary course is divided into two parts by the GCE examination. I would also like to point out that there are two main difficulties with an integrated course of secondary education.

(1) At the point of entry to the course, the pupil is too young to take any decision about his future career and it is next to impossible for the State to introduce any element of selective admissions. Consequently, more students enter the course than is necessary; and once they enter it, they have to continue till they reach the end. This increases enrolments and also adds to wastage and stagnation.

(2) It is also difficult, in an integrated course, to provide adequately for vocationalisation and an attempt is made to give a bias for a vocation. This does not work out satisfactorily in practice.

Both these difficulties can be overcome by dividing the secondary education course into two parts, the first of which will be broadly restricted to general education and the second will be intensively vocationalised and made largely terminal. This is the essence of the recommendation made by the Education Commission for adopting the pattern of 10 + 2 + 3.

I very strongly feel that steps should be taken, right in the Fourth Plan, to give effect to this recommendation. The first step would be to adopt the 10-year school in all parts of the country with a public examination at the end. This will provide a course of broad general education for all—there is no need to introduce any elective element at this stage—and the ultimate policy should be to make this education free and universal. The next step is to introduce the higher secondary course of two years and the three-year course for the first degree examination in Arts, Science and Commerce. Where the total period required for the first degree is already 15 years or more—and this is so in more than half of India—the programme can be introduced without much difficulty and additional expenditure. Where, however, an additional year is required, as in most northern States, a suitably phased programme will have to be prepared, a year being added at the higher



secondary stage as in Rajasthan or at the degree stage as in Uttar Pradesh.

My second proposal in this regard is that our emphasis in secondary and higher education should now be effectively shifted from expansion of facilities to programmes of qualitative improvement. I have not said so at the primary stage where I am of the view that expansion will have to continue and be accelerated for some years to come. But the position at the secondary and university stages is entirely different. In the first place, the significance of standards is much greater at this stage than at the primary, and this significance increases, in more than geometric progression, as one moves up the educational ladder—from lower to higher secondary, from secondary to under-graduate, and from under-graduate to post-graduate and research. Secondly, the expansion of enrolments at these stages has been going on during the last twenty years, at about 10 per cent per year. The additional investment we have been making in this sector during the same period, even at current prices, is of the same order or even less. Consequently, we are now spending, at constant prices, less per student in secondary and higher education than we did about twenty years ago. As everyone is aware, the consequences of this on quality have been disastrous. The situation will become worse if we do not slow down the pace of expansion because the additional investment we may be able to make in these sectors in the years ahead may not reach even the dimensions of the last few years. It therefore becomes almost inevitable that the expansion rates in secondary and higher education are reduced. This alone can provide the breathing space we need to make some definite improvements in quality. It will also enable us to spare more resources for the expansion of facilities at the primary stage. One should not ignore the fact that for one student *not* admitted to secondary school, about three students can be admitted to the primary school and that for each student *not* admitted at the university stage, at least ten students can be admitted at the primary stage.

How can this slowing down of the tempo of expansion be brought about? A number of specific proposals can be made from this point of view.

(1) The location of secondary schools and colleges should be carefully planned to avoid unhealthy educational competition, overlapping or duplication. The findings of the Second Education Survey could be a good basis for such planning at the secondary stage. At the university stage, the task will have to be attempted by the universities.

(2) Considerable restraint will have to be exercised in the establishment of new universities. The policy recommended by the Education Commission that a university centre should be established first and then developed into a university when adequate resources in terms of teachers and finances are available is a good basis to adopt.

(3) Where, as in Rajasthan or Madhya Pradesh, most of the secondary schools and colleges are in the public sector, limitations of finance necessarily control the tempo of expansion. But where private enterprise plays a dominating role at these stages, as in Maharashtra or Uttar Pradesh, expansion is generally rapid and difficult for the State Government effectively to control. It would, therefore, be desirable to prescribe stricter conditions for recognition and affiliation and to enforce them rigorously. In Madras, for example, a new secondary school can be recognised only if there is a reserve fund of Rs. 75,000 and a college can be recognised only if it builds up an endowment fund of Rs. 5 lakhs and collects another Rs. 5 lakhs for initial capital expenditure. Similar measures should be adopted in all States. The academic conditions in terms of teachers, facilities provided, etc. will also have to be made more rigorous.

(4) At the beginning of the lower secondary stage (classes VIII-X) it may not be possible to introduce any element of selective admissions. An attempt should, however, be made to provide adequate educational guidance so that a student is helped to decide whether he should discontinue education or proceed further and the type of course he should enter upon. But it should be clearly laid down that education beyond class X cannot be claimed as a matter of right.

(5) At the higher secondary stage (classes XI-XII) an earnest effort should be made to increase the facilities for vocational education of appropriate categories so that students completing this stage would be largely diverted into different

walks of life. To assist in this process, the existing recruitment policies for Central and State government services should also be so modified that the bulk of persons selected for them would be from among those who have completed secondary education. Both these measures would considerably reduce the pressure of admission to higher education.

(6) It would also be desirable to restrict enrolments at the university stage on the basis of the facilities which can be realistically provided in terms of teachers and equipment and estimated man-power needs or employment opportunities. The total number of students to be admitted to a college or to a university department should be definitely fixed on the basis of these considerations and rigorously adhered to.

(7) If the number of applicants to a college or a university department is less than the seats available, the question of selection does not arise. But if the number of applicants exceeds the seats, the best among the applicants should be selected on some equitable basis. The question of devising suitable selection procedures is important, no doubt. But these will be evolved in the light of experience once the principle of selective admissions gets general acceptance and comes into vogue.

It is rather unfortunate that these allied problems of slowing down the pace of expansion at the university stage and introducing, where necessary, an element of selection in admissions to higher education have not been squarely faced so far. It is high time that a definite decision is taken in all these matters and rigorously implemented.

It would be appropriate to say something at this point on the problem of educated unemployment. The gap between education and employment which has been continually widening in recent years has to be closed as early as possible, the ultimate objective being, as the Education Commission has recommended, to move towards a situation in which every graduate can be given, along with his degree or diploma, an offer of employment as well. This will improve the motivation of students, give a purpose to their education and make them feel that the country needs them and is waiting for them. The slowing down of the pace of expansion in secondary and

higher education is a necessary but insufficient step towards the solution of this complex and difficult problem which can only be solved by an integrated programme of population control, economic development, and educational reconstruction. At present, the annual additions to the labour force are very large, about two per cent *per annum*, owing to an inordinately high birth-rate. The new jobs that we can create are, on the other hand, comparatively limited because of a low rate of economic growth. Moreover, education is not adequately related to productivity so that the students that come out of our educational institutions do not appreciate the dignity of manual labour and do not develop the attitudes which are essential for responsible productive work. Many of them only want white-collar jobs, which are in short supply, while a large number of jobs and opportunities of productive work remain unutilised for want of properly trained man-power. What is now needed is an earnest effort

- (a) to control population and to reduce our birthrate to about half of its present size;
- (b) to increase agricultural production and develop industry so as to attain an annual growth rate of about six or seven per cent in our economy; and
- (c) to reconstruct our educational system so that every educated individual becomes, not a problem, but an effective centre of increased and more efficient production.

This is the crux of the recommendations made by the Education Commission and I hope that an earnest effort will now be made to implement them without delay.

My third proposal in this regard is that we should launch an intensive effort to improve the standards of education at the secondary and university stages. The possibility of a major effort in this direction will be enhanced to the extent we succeed in slowing down the pace of expansion.

At the secondary stage, the focal point of our efforts should be to improve teaching in all subjects, and especially in mathematics and science. From this point of view, special emphasis will have to be placed on improving the quality of teachers, revision and upgrading of curricula, provision of

adequate facilities—especially libraries, laboratories and crafts-sheds—improvement of supervision and organisation of extension services. At the lower secondary stage (classes VIII-X), a point of emphasis should be remedial work, i.e., making up the deficiencies of preparation at the primary stage. I would also like to refer to the general view that the one-year pre-university courses, which are often reduced in practice to about five months or so, are not very helpful to equip the students for entrance to the university. In my opinion, the lengthening of the higher secondary course to two years will provide an excellent opportunity to prepare students intensively for the university and this should be fully utilised.

The stress on the improvement of quality at the university stage should be greater still. A system of higher education which produces competent man-power of good quality can promote national development. On the other hand, a system of higher education which produces indifferently educated young persons who remain unemployed or are even unemployable can create social tensions and retard economic growth. That is why Pandit Jawaharlal Nehru observed: "If the universities discharge their duties adequately, it is well with the nation and the people." Unfortunately, our system of higher education is in an unhealthy state at present. The growing incidence of student unrest, involving an increasing element of violence, bears witness to the seriousness of the situation. Things are especially bad in U.P., Bihar and West Bengal where the system is almost collapsing in many cases. In Calcutta University, the March 1967 examinations have not yet been held. In UP and Bihar, invigilation in examinations has become extremely difficult and attacks on invigilators, sometimes resulting in death, have become frequent. Concerted action on the part of the Centre, the States and the university teachers is called for to remedy the situation and their efforts will have to receive the co-operation of parents and the political parties. The Government of India which is constitutionally responsible for the co-ordination and maintenance of standards in higher education has also a special responsibility for initiating effective action in this field.

In the programmes of qualitative improvement of higher

education, the focus should be on the student. Steps should be taken to provide adequate student services in all colleges and universities. As stated earlier, the provision of adequate text-book libraries to which all students can have easy access will be an important part of these services. Moreover, active steps should be taken to establish close contacts between teachers and students. As recommended by the Education Commission, joint committees of teachers and students should be established in all colleges and universities with a view to providing a forum for common discussion of problems and finding solutions to them. Programmes of national service and games and sports should be developed as an alternative to the NCC which is compulsory for all at present.

Improvement of standards in higher education also depends upon the leadership provided, the availability of funds and concentration of resources, both human and material. Every care should, therefore, be taken to see that the right type of persons are appointed as Vice-Chancellors. Equal care has also to be taken in the appointment of heads of departments in universities and principals of colleges. The Government of India has to make more resources available to the universities and, as Dr D. S. Kothari has pointed out, a substantial increase will have to be made in the funds placed at the disposal of the University Grants Commission from year to year. The State Governments, on their part, will have to be equally liberal in providing adequate maintenance grants and matching funds for the developmental grants given by the UGC. As stated earlier, appropriate machineries for planning and development should be set up in each college and university and every assistance should be available to colleges and university departments which show good performance and potential for growth.

One of the major programmes of reform in higher education is to adopt the regional languages as media of education. Unless this is done, the standards of higher education will not be raised, the creative energies of the people will not be released, knowledge will not spread to the masses, the process of modernisation will not be accelerated and the gulf between the intelligentsia and the people will not be bridged. This reform has been in demand for nearly a hundred years. It

has had the support of all our great national leaders such as Rabindranath Tagore and Mahatma Gandhi. It has been supported by several academic bodies such as the Radhakrishnan Commission, the Emotional Integration Committee, the Vice-Chancellors' Conference, the Central Advisory Board of Education and the Education Commission; and yet the progress made so far has been halting and desultory. What is needed is a planned attempt to bring about this change by producing the necessary literature needed in Indian languages and simultaneously strengthening the teaching of English as a library language with a view to giving the students direct access to the growing knowledge in the world. This must be a high priority programme to which university teachers will have to address themselves during the next ten years.

A big effort is needed in the Fourth Plan to develop post-graduate education, which at present has become a bottleneck because the expansion at the lower stages is quite out of proportion to the growth at the post-graduate stage. Consequently, we do not get good teachers for colleges. This dilutes under-graduate education and makes it difficult to get good teachers for secondary schools. In its turn, this dilutes secondary education itself and makes it impossible for us to get good teachers for elementary schools. The only way to break this vicious circle is to double or even treble the output at the post-graduate stage during the next few years. In this, the Government of India has a very important role to play. It must find the policies and the resources needed for this purpose because no one else can or will do so.

*Professional, Technical and Vocational Education:* The fifth and the last group of programmes which I shall briefly discuss relates to professional, technical and vocational education. A number of important programmes will have to be developed in this sector during the next few years. In particular it is necessary to emphasise agricultural education. Dr Kothari has pointed out that the status of agricultural education in our university system is almost the same as that in the UK although the role of agriculture in our economy is far more important. Such an anomaly should be ended as soon as possible.

(1) The education of the young practising farmer has been very largely neglected so far. It is, therefore, necessary to develop a programme of primary extension centres recommended by the Education Commission. A primary extension centre will provide part-time vocational education to those young persons who have left school and adopted agriculture as their career. This will essentially be a practical course whose main objective is to enable the trainees to improve production on their own farms by adopting improved techniques and will not qualify them for a job under government. A very large number of such primary extension centres will have to be established in the long run because a centre will have to be available within five to seven miles of every village. But a beginning may be made on an experimental basis and the programme expanded in the light of the experience gained.

(2) There are not many facilities at present which prepare young persons to work at the middle level in agricultural or agro-industrial development. It is with a view to remedying this weakness that the Education Commission recommended the establishment of agricultural polytechnics. This programme should be started in the Fourth Plan in a few centres and a beginning should be made with such courses and training facilities as have an immediate demand.

(3) The programme of agricultural universities should be expanded further and their working should be closely integrated with that of the other universities.

(4) In technical education, the projections of engineers needed have all gone wrong and, from the evidence available at present, it appears that we are over-producing engineers. There is thus no question of starting new engineering colleges, not even of increasing the in-take of existing institutions. On the other hand, it has become necessary to reduce immediately the in-take facilities by about one-third if the unemployment situation amongst engineers is not to be worsened. Similar measures, although on a smaller scale, will be needed at the middle level in respect of polytechnics. For the next few years, therefore, efforts should be concentrated on improving the quality of technical education and on linking it more closely with industry.

(5) The shape of things in agriculture and industry is

continually changing. Programmes of agricultural and technical education will, therefore, have to be elastic and sensitive enough to be adjusted meaningfully to the changing conditions.

(6) In providing training for professional, technical and vocational education, there should be great emphasis on training for self-employment, especially in the simple crafts, forms of commerce, trade and industry, and the necessary facilities should be given for such persons to engage themselves in remunerative self-employment after the training is over.

These are some of the major programmes which, in my opinion, should be considered for inclusion in the new Fourth Five-Year Plan. They are all based on one major assumption that a reorientation of both our educational and economic thinking is needed. This reorientation is to move away from the top structure or urban areas of the society and to direct attention to increasing the productivity of the rural economy where the great mass of potential producers is to be found. It is to move away from a policy of providing more and better education to those who are already educated but towards the creation of opportunity at a level where the great mass of the Indian people are capable of taking an initiative and put to use skills and intelligence which are constantly under-estimated. In terms of educational planning, this new reorientation includes the control of expansion at the secondary and the higher stages of education, the diversification of the secondary level to provide large-scale vocational training, especially in agriculture, training of young persons in self-employment at various levels of craft, trade, commerce or industry, emphasis on functional literacy, development of community effort for improvement of educational facilities and taking the fastest route possible to provide five years of good and effective education to all children.

#### I I. PRIORITIES

In spite of the opening statement that these proposals are based on the selective approach, they may still be criticised on the ground that these are not selective enough, that it will not be possible to muster enough resources to attend to all of these, and that a further selection will still be necessary. I

plead guilty to this charge and admit that priorities will have to be determined, even within the limited proposals put forward here.

At what level will decisions on these priorities be taken? In the first three plans, far too many decisions on priorities were taken at the national level and centrally sponsored schemes were devised to give effect to them. The idea underlying this approach was that there could be a large number of priority programmes common to all States and that they could best be promoted through centrally sponsored schemes which made earmarked grants available to the State Governments. The experience of this type of planning has not been very happy, mainly because educational problems vary from State to State and it is very difficult to devise common programmes which will have priority in all the States. Teacher education may be a priority in Assam or West Bengal but it has no priority to the same extent in Kerala or the Punjab. Girls' education may be a priority in Rajasthan but not to the same extent in Madras. Development of facilities for higher education is a priority programme in certain districts of Orissa and Madhya Pradesh but not so in most districts of West Bengal or U.P. The same can be said about almost every programme. The Education Commission which examined this problem at some length has pointed out that, in our situation, priorities will have to be determined at three levels—national, state and local. It says:

(1) Programmes of national significance such as vocationalization of secondary education may be regarded as national priorities in the sense that the decisions regarding them should be taken by the Centre in consultation with the States and, once they are taken, it should be obligatory on every State to implement them effectively and vigorously.

(2) In several other matters, and these would form the bulk of the decisions to be made, a system of State-level priorities should be adopted, i.e., each State may be left to make its own best decision in view of local conditions. These would include problems such as making secondary

education free of tuition fees and in such matters, no attempt at a national uniformity need be made.

(3) In certain other matters, as for instance, in the provision of amenities in schools, a system of local priorities may be adopted. The State Governments may create appropriate authorities at the district and school levels and leave them free to take decisions best suited to the local conditions. There should be no need to expect any uniformity in these matters between one district and another and even between one school and another.

A system such as this which centralizes a few essential sectors at the national level would be much better than the present trend to take more and more decisions—crucial or otherwise—at the national and State levels. This sometimes results in the curbing of local initiative and disregard of local conditions.

This recommendation could be the basis of the policy to be adopted in the fourth and subsequent plans.

#### 111. ADMINISTRATION AND FINANCE

If the major programme of educational reform outlined here is to be satisfactorily implemented, it is evident that the administrative machinery, both at the Centre and in the States, will have to be considerably reorganised and strengthened. Some of the changes needed in this sector have already been incidentally referred to. In addition, there are a few major changes needed which I propose to discuss here in brief.

*Administration at the Centre:* The Central Ministry of Education has the responsibility to provide stimulating leadership in educational development. It can discharge this responsibility effectively only if the administrative procedures make it possible to invite individuals who have stature and leadership of their own in the educational world to work in the Ministry of Education in responsible posts and participate effectively in the formulation of educational policies and their implementation. From this point of view, one tradition has already been established in the last twenty years, namely, the post of the Secretary to the Ministry of Education has been

offered to and held by distinguished educationists. It is very necessary that this tradition should be continued and, as recommended by the Education Commission, be extended to all the posts at the Additional and Joint Secretary levels. These posts should be held, on a tenure basis, by distinguished educationists selected from the universities, the State Departments of Education and research and educational institutions, the duration of the term being five years to be extended, in exceptional cases, by another term of five years. Persons who are working in the lower posts in the Ministry of Education may be considered for these posts on individual merit. But they should not be entitled to them as a matter of promotion.

There is an advisory service of educational officers working in the Ministry of Education. Several difficulties arise because of the small size of this service and because the officers recruited to it are compelled to work in the Ministry of Education only and cannot be provided with direct field experience from time to time. These difficulties would have disappeared if the IES could have been created. But the chances of its creation now appear to be remote and alternative proposals will therefore have to be evolved to strengthen and improve this service. Probably a good way out would be to make arrangements with the State Governments, Union Territory Administrations and the universities for the periodical deputation of officers of the advisory service to work in the field. A certain number of posts in the service could also be reserved for deputation of officers from the State Education Departments for short tenures on the same lines as the periodical deputation to the Centre of the IAS officers allocated to the different States.

Outside the Ministry of Education, there are two main organisations which deal with education—the University Grants Commission which is concerned with higher education and the National Council of Educational Research and Training which is mainly concerned with the school stage. The scope and functions of the UGC cover, under the law, all sectors of higher education. But in practice, the UGC deals only with Arts, Science and Commerce. Technical education is dealt with directly by the Ministry of Education, agricul-



tural education by the Ministry of Food and Agriculture, and medical education by the Ministry of Health. As the Sapru Committee and the Education Commission have recommended, it would be desirable to bring all higher education under one umbrella in practice also and place it under the UGC, UGC-type bodies being created, if necessary, for agricultural, medical and technical education, as a transitional measure. The UGC also has to provide more active leadership in the improvement of higher education by developing programmes at the national level in such fields as examination reform, establishment and maintenance of a Central Testing Organisation, promotion of research, especially on the basis of inter-university collaboration, development of autonomous colleges or deemed universities, book production programmes, etc. The working of the National Council of Educational Research and Training needs a thorough review and large-scale reorganisation. Its functions should be exclusively restricted to the school stage of education and its main responsibilities should be to provide extension services to the State Education Departments.

A very important responsibility of the Government of India is to serve as a clearing house of information and ideas—both in the international as well as in the national field. The Ministry of Education has to keep itself in touch with important educational developments in other countries and bring these to the notice of the State Governments, universities, etc. insofar as they have a significant bearing on our problems. Within the country itself, it has to remain in close touch with the educational developments in every State and bring these to the notice of the other States. The need for this service will become greater as the State Governments adopt the regional languages for their administrative purposes. I think that in both these fields the services offered by the Ministry of Education are comparatively weak at present. There is thus an urgent need for the establishment, at the national level, of a strong documentation centre and clearing house for the proper development of these important services.

*Administration in the States:* Insofar as the State Educa-

tion Departments are concerned, the following programmes need consideration:

(1) At the State level, there should be a Board of Education to advise Government on all educational matters. It should include representatives of all the interests concerned.

(2) The Directorate of Education should only concern itself with general co-ordination and policy. As integral parts of the Directorate, and working in close collaboration with it, there should also be specialised organisations concerned with specific programmes of qualitative improvement such as (a) The State Institute of Education, (b) The State Board of Teacher Education, (c) The State Board of School Education, (d) The State Bureau of Text-book Production and Curriculum Research, (e) The State Evaluation Organisation, etc. A broad indication of the organisations needed at the State level and their functions has been given in the Report of the Education Commission. Changes could also be made in these proposals to meet local conditions. But the main point to be emphasised is that there should be adequate agencies at the State level to look after the programmes of academic improvement and these should work in close collaboration with the agency for administration and supervision which the Directorate of Education essentially is.

(3) The District should be regarded as the principal unit for administration and supervision and adequate machinery should be created at this level for supervision of schools and provision of extension services to them. In big States, divisional offices may be set up between the Directorate and the districts. But the ultimate objective should be made to make the district offices as strong as possible. All administrative and financial issues should be finally decided at the district or the divisional levels and should not climb up to the Directorate which should be left mainly to deal with broad policies.

(4) Steps will have to be taken to improve the quality of the personnel working in the State Education Departments. Instead of creating too many posts at the lower levels, which is broadly the policy at present, it might be desirable to create a few posts at higher levels of salaries and competence. The recruitment policies are often such that the bulk of the

recruitment takes places at the lowest level and the posts at higher levels are filled largely by promotions from the lower ranks. Instead, it should be the general policy to fill a very large proportion of posts at every level by open competition so that fresh blood and talent is attracted in adequate quantity. The scales of pay of the teaching and inspecting staff should generally be the same so that interchange of persons between teaching and inspection or administrative side becomes more frequent. There are hardly any facilities for proper in-service education of the officers of the State Education Departments at present. Adequate facilities for this will have to be provided, both at the State and at the national levels.

The essence of administration for educational development is to give a proper place to the professional leadership of teachers. This is already the practice at the university stage but special measures will have to be adopted to develop it at the school stage as well. Teachers should constitute a majority of members of organisations like the State Boards of School Education or the State Boards of Teacher Education. The system of panel inspections should be adopted at the school stage with a view to enabling teachers to play an active role in improving educational standards. Professional organisations of teachers should be consulted on all matters of educational policy and reform and should be actively associated with the implementation of programmes. Subject-teachers' associations should be developed and utilised intensively for improvement in methods of teaching and evaluation. Efforts should also be made to break up the 'caste' system that imperceptibly grows up among teachers and to create forums where teachers of all categories can work together to pursue common objectives.

The programmes of administrative reform are crucial to successful implementation. These should therefore be regarded as 'core' programmes—along with the four others mentioned earlier—and implemented on a basis of very high priority.

The programme of large-scale educational development visualised here will also mean a considerable increase in the

total investment in education. The Education Commission recommended that the allocations to education should increase at about 10 per cent per year at constant prices. This would probably be the minimum required; and if it is to be realised, we shall have to evolve a multiple-source system of financing education in which the Government of India, State Governments, local authorities, voluntary organisations and local communities will join together to strengthen and supplement the efforts made by the other agencies. None of these agencies taken by itself can meet the challenge of the situation; but all of them taken together should be able to do so.

The Kher Committee recommended as early as 1950 that the Government of India should spend about ten per cent of its total revenues on education. I do not quite approve of this idea of planning by percentages. But it emphasises the view of the Committee that education is a national concern and that the Government of India should provide a fairly substantial support for it. At the present moment, the Government of India is spending only about four per cent of its budget on education. There is thus a good case for asking for a substantial increase in the Central investment in education.

How can the Central allocations to education be best utilised? Obviously, this can be done in three ways:

(1) The Central sector can be expanded to provide more national scholarships, develop agricultural, engineering and medical education, promote educational research, make larger allocations to the University Grants Commission for such programmes as the Centres of Advanced Studies, Schools of Education, Post-graduate Education and Research, maintenance grants to State Universities, qualitative improvement of higher education and provision of student services and amenities.

(2) A few major schemes can be developed in the centrally sponsored sector. These should be programmes of national significance in which simultaneous and co-ordinated action on the part of the State Governments is necessary. The financial support for such programmes could be made by the Centre through earmarked grants given to the State Governments.

(3) The Centre can also make lump sum grants for educa-

tional development available to the State Governments. These should be distributed on some equitable basis and should be earmarked in the sense that they will be used for educational development only. But each State should be free to utilise the funds for such programmes as have a priority in its situation.

State Governments have naturally to bear the heaviest responsibility for financing education. The Kher Committee recommended that the State Governments should spend about 20 per cent of their total revenues on education. Several States have now reached or exceeded this target. But even now, the State effort for education shows considerable variations—allocations to education varying from about 42 per cent in one State to 16 per cent in another. It is thus evident that there is considerable scope for greater financial effort in support of education in many States. I am also pained by the fact that, by and large, State Governments do not seem to accord a high priority to educational programmes. In the first three plans, education received about 10 per cent of the total state plan outlay. When the Fourth Five-Year Plan (1966-71) was being prepared, it was assumed that the States would now accord a higher priority to education and would give it about 12.5 per cent of the total plan allocations. As things turned out, however, education received only about 10 per cent in the Fourth Five Year Plans of the State Governments. Even these reduced targets were not realised in practice. Taking the years 1966-67 to 1968-69 as a whole, education received only about 6 per cent of the total State plan outlay, partly because the overall amounts available for planned development were reduced and partly because higher priorities were given to agriculture, irrigation, power, industry and family planning. In other words, education was given a much lower priority in the State plans during the last three years than in the first three Plans. This trend will have to be reversed; and in the new Fourth Plan, State Governments will have to give a higher priority to education than in the past.

The local authorities can make a substantial contribution to the support of education. At present, the position varies largely from State to State—their contribution being fairly

substantial in States like Maharashtra and Madras and almost non-existent in States like Punjab or Kerala. The general policy should therefore be to associate local authorities with the administration of education and make them contribute to its support by the levy of education cesses in urban and rural areas. A minimum cess should be obligatory and in order to stimulate the raising of funds to the maximum, grants-in-aid from the State Government should be given to match all levies above the minimum rates. A plan like this has been tried successfully in Maharashtra; and there is no doubt that it can yield good results in other parts of the country as well.

The voluntary organisations are finding it more and more difficult to raise funds towards recurring expenditure the bulk of which will have to come from the State Governments. In non-recurring expenditure, however, they can make a substantial contribution and this is what we should strive to get. The grant-in-aid rules should provide that the educational institutions conducted by voluntary organisations will get grant-in-aid for capital expenditure on a certain proportion of the total cost, the balance coming from the voluntary organisations themselves.

The local communities can also make considerable voluntary contributions in support of education. In Madras, the scheme of school improvement conference has been very successful and through it, assistance worth crores of rupees has been collected from the people to improve facilities in local primary schools. There is no reason why a similar scheme should not be developed in every State and Union Territory. In addition, the programme of instituting an 'Education Fund' in each educational institution will also be able to net substantial contributions and donations from the people. The people are still willing to pay for education provided they can be assured that their contributions, along with some Government grant thereon, will be locally available to them for improving the educational facilities for their children.

While efforts to maximise the investment in education on these lines will have to be continued, it must be realised that, in spite of our best will and efforts, the overall resources likely

to be available for education in the new Fourth Five Year Plan will be limited. It is therefore very necessary to ensure that we obtain the maximum return from whatever investment we now make in education. From this point of view, several programmes will have to be emphasised such as (a) an intensive utilisation of available facilities, (b) reducing capital costs, especially on buildings and (c) reducing recurring cost per student by the adoption of suitable devices.

Several programmes can be developed from this point of view, among which the following may be mentioned:

(1) The number of working days should be increased and the working day should be lengthened. Vacations should be fully utilised for co-curricular and extra-curricular programmes. Facilities like libraries, laboratories and crafts-sheds should be kept open all the year round and for as many times on each day as possible. Every effort should be made to create a climate of hard work in our educational institutions, the target being to keep students engaged in challenging programmes for at least 50 to 60 hours a week throughout the year.

(2) The expenditure on buildings should be reduced to the minimum by utilising locally available materials and by adopting utilitarian rather than ostentatious standards. Wherever possible, equipment should be shared in common by a group of schools; and when equipment becomes costly and sophisticated, it should be intensively and co-operatively used for the largest part of the day and throughout the year.

(3) The recurring costs can be reduced in a number of ways. A reference has already been made to proper planning of the location of educational institutions which will help in creating bigger, more efficient and more economic institutions. Reference has also been made to the adoption of a larger class size or a larger pupil-teacher ratio at the primary stage and developing suitable techniques of teaching for the purpose. At the secondary and university stages, it is quite possible to utilise advanced students for purposes of teaching and thereby reduce costs, provide a method of earning and learning to a fair proportion of students, and improve standards by giving individual attention to the weaker students. Very often, we adopt programmes which push up the cost per student with-

out bringing in a corresponding return. The five-year degree course for engineering, the integrated course of general and professional education introduced in the regional colleges are good instances in point. A poor country like India cannot afford such luxuries.

A major weakness in our administrative set-up is that we do not take the trouble to evaluate our programmes with a view to improving efficiency or cutting down costs. We therefore learn little from past experience and in our set-up, a man with twenty years experience often means a person who has repeated the same mistakes twenty times over. The price of efficiency and progress is eternal watchfulness. Evaluation should therefore be an integral part of all programmes we undertake, at least of all the major programmes; and every scheme drawn up for initiating a programme should categorically enunciate, along with its objectives and organisational and financial aspects, the manner in which it will be periodically evaluated and modified in the light of experience gained.

#### IV. IMPLEMENTATION

It has often been observed that we are a nation of good planners but bad implementers. I do not quite subscribe to this view. Our planning has had its own weaknesses which can no longer be ignored and the main theme put forward here is that we must take serious note of these weaknesses and improve our planning techniques without any delay. But I will concede the point that our plans have been fairly good and that, even if they had been implemented satisfactorily, the results would have been much better. Our major weakness therefore is the failure to implement. This is not a new thing either. We have always preferred to talk, to pass resolutions and to prepare ambitious plans that sound enchanting on paper. One often wishes however that we should have talked less and shown a greater flair for action, passed fewer resolutions but showed a greater resolution in implementing even a part of what was glibly agreed to, and prepared less ambitious plans but exerted more in implementing them. While discussing the 'failure' of basic education, my friend, the late Shri Aryanayakam, once said that we are a nation of planners and

that we can prepare plans, not only for ourselves, but for every country on earth. We cannot however implement them. The only major projects which we have been able to implement successfully, he said, are those like the steel plants over which we have entered into an agreement with some progressive country. Can we not, he asked, enter into an agreement with some nation—say, Germany or Japan—for making basic education successful? There is obviously a point in his bitter satirical rhetoric.

Why is it that we fail to implement vigorously? The question has been often asked and several tentative answers have been suggested. The most common answer given relates to the failure of the human factor. There is however no agreement as to which human factor this is and a frequent exercise in this regard is to try to discover a scapegoat—the present company always being excluded—and to ride him hard. Politicians will blame the bureaucrats. Teachers will blame Government, the Department and, to some extent, the parents. Parents and bureaucrats will blame the teachers. Students will blame everyone else and everyone else will blame the politicians. This analysis does not obviously take us anywhere. Another set of reasons given refers to unfavourable social or economic factors over which the school has no control or the lack of adequate co-operation from parents, the community or other departments of governments. Children do not come to school because of poverty or illiteracy of parents or social prejudices. Buildings are not put up because the public works departments are cussed. The text-books are not printed in time because the inefficiency of Government presses is colossal. The Centre blames the States; the States blame the local bodies and, wherever possible, the Centre; and so on. Sometimes the weaknesses of educational plans are also admitted. But one can easily get out of it by blaming the Planning Commission. Exercises of this type also can provide little guidance of a practical character to improve the situation for the simple reason that they deal with superficial symptoms without going to the root causes of the trouble.

The remedies prescribed on such superficial analysis of the causes of failure are naturally found to fall far short of expectations. For instance, the provision of amenities and facilities

to students has been recommended as an important measure to control student unrest. But the universities where these amenities or facilities are probably the best are precisely the centres where student unrest has been endemic. The improvement of the salaries of teachers has often been put forward as the major panacea for all our educational ills. We have been increasing the scales of pay of teachers from time to time in the last twenty years. It will not, however, be easy to point out any major educational improvements that have resulted from this measure. Of course, I do not mean to say that amenities should not be provided to students or that scales of pay of teachers should not be improved. Both these reforms are urgent and necessary. But what I want to emphasise is that, taken by themselves, they will not solve the difficult problems facing us. What we need is some basic changes and reforms which go beyond all such measures and which form the crux of the total programme of the educational reconstruction we have in view. If these basic changes are brought about, every educational reform we undertake will pay rich dividends. But if they are to be carried out, we shall not get proper return even from those educational reforms which we are able to put across. This conclusion is further strengthened by the fact that the failure to implement is not peculiar to the educational sector. In fact, what has been said above of educational reforms can be said of the reforms in almost every other sector. The reasons for our failure to implement educational plans are therefore deep-rooted and fundamental. They go much beyond education and result in our general failure to implement plans in all sectors.

What are these basic requirements which are essential to successful implementation of all programmes of national development. In my opinion, these are five:

(1) The first is the love of the motherland. It is only this which can give us the energy to put in the mighty effort that is needed for national reconstruction and the courage to undergo all the heavy sacrifices which it will involve.

(2) The second is the Swadeshi spirit. Psychologically it means feeling proud of being an Indian and confident of the greater future which we can create for ourselves. This spirit has to enter into every walk of life. For instance, in the field

of economic development, it implies an insistence on buying India-made things only, even though they might be of inferior quality and more costly; and so on.

(3) The third is willingness to work hard and in a spirit of dedication. For a developing country, which is short of resources in physical and financial terms, there is no escape from hard and dedicated work which can make up, to a very great extent, the shortfalls in material and financial resources. In fact, the only substitute for hard and sustained work in such circumstances is yet harder and more dedicated work.

(4) The fourth is austerity and simplicity which are among the great lessons that Gandhiji taught us. Gandhiji had his own metaphysical reasons for emphasising these values which we may or may not accept. But at the present level of our economic development, simplicity and austerity are no longer a matter of choice. They constitute an inescapable and effective strategy of development.

(5) The fifth is willingness to share life with the masses. There has already been a gulf in our society between the educated classes and the masses. In the post-Independence period, this gulf has tended to widen rather than otherwise. Unless this gulf is bridged through a sharing of life with the people, the movement for national development will not gather momentum that it needs.

We shall have to bring these five basic values to bear upon education. First and foremost, we have to develop a passionate commitment to national development and a conviction that education is the most powerful instrument of such development. Nothing can stand in the way of a nation which has decided to educate itself; and no country can be so poor that it cannot provide good education to its children. In my opinion, the principal bottleneck in our educational progress is not our poverty or our lack of resources. It is the lack of a conviction that education is the most important instrument of national development and the lack of a determination to educate ourselves. Unless this commitment and conviction is created, education can never have the priority it needs or deserves.

We must also, as I said earlier, develop a Swadeshi movement in education. More than anything else, it will involve

(a) a shift in the 'centre of gravity' of our academic life inside the country; (b) hard, original and creative thinking to devise appropriate solutions to our problems; (c) an intensive effort to produce most of the text-books we need; and (d) to receive aid, if necessary at all, as a transitory step that will ultimately eliminate all need for external assistance. Such a movement must form the very basis of the fourth and subsequent plans.

We must also be prepared to work hard and in a spirit of dedication. The under-utilisation of our existing educational facilities is an unpardonable waste in a developing economy like ours. We must realise that there is no road to development except through hard work and through the fullest utilisation of existing facilities. Similarly, we must realise that idealism is needed, now more than ever, in all walks of national life, and especially in education. It is the leaven of idealistic teachers and dedicated students that alone can help us to develop education to meet our national needs.

There is an infinite scope for practising the virtues of austerity and simplicity in all our educational sectors, and particularly in higher education. I wish that the buildings of our universities, engineering colleges, institutes of technology or national laboratories were much simpler and less costly than they are at present. Our furniture could definitely be simplified. Our hostels cost too much and have too many servants. If they were to be planned on a more austere basis and a good deal of self-service expected of all students, the costs would be reduced considerably and it would be easier for many more students to study in them. We have also evolved costly standards of dress for university students. These may suit the sons of the rich; but they do create difficult problems for the children of the middle and poor classes. I wish that we should introduce a far greater element of austerity and simplicity in the planning of our education with a view to relating it more closely to life and making it broad-based.

We must also learn to share life with the masses of the people. With the attainment of independence, the educated people of this country have been put on their trial. Will they use their education, talent, wealth and power to raise the standard of living of the people and thereby reduce the gap between them and the people, the haves and the have-nots,

or will they use these assets of theirs for strengthening and perpetuating their own privileged position so that the gulf between them and the masses becomes wider still? Unfortunately, all that has happened so far makes me inclined to feel that they have chosen the latter course. In this lies the danger to the country and ultimately to the educated classes themselves. They should therefore realise that, even in their own enlightened self-interest, it is essential that they become one with the people and share a common life with them. I hope and pray that they realise these responsibilities and rise to the occasion. Perhaps there could be no better way to show this realisation in education than to adopt the concept of the neighbourhood school.

I am convinced, more than ever, that what we need at the moment to pull us out of the series of crises we are in is a renewal in national life. This may come about in the political life of the country through a regeneration of our political leadership. Nothing can be better if that were possible because this generation can then spread quickly and effectively to all other walks of life. Alternatively, this renewal may begin in education through a regeneration of the academic community which should become a dedicated and true servant of the people, passionately striving for their betterment. It can then spread to other walks of life and ultimately result in bringing about an all-sided development of the nation. As a teacher, I feel that this latter development is more possible and it is in our hands to bring it about. It is in this sense that the Education Commission has pointed out that educational reconstruction in India 'presents a supreme challenge to the students, teachers and educational administrators who are now called upon to create a system of education related to the life, needs and aspirations of the people and to maintain it at the highest level of efficiency. It is upon their response to this challenge that the future of the country depends.'

## 3

## APPENDIX

## A HISTORICAL REVIEW OF EDUCATIONAL PLANNING IN INDIA\*

1. THE preliminary thinking about educational planning began in India about thirty years ago and it became a national policy in 1951. Three Five Year Plans have since been completed and have been followed by three Annual Plan years. The Indian experiment thus provides a rich experience of educational planning in a developing country; and all the more so because the programme has been developed in a democratic context and because the problems to be tackled are extremely complex and difficult.

### 1.1. EARLY ATTEMPTS (1937-1947)

2. In the decade preceding the attainment of independence (1937-47), there were attempts, in official as well as non-official circles, to prepare a plan of educational development for the country.

3. *The Post-War Plan of Educational Development in India* (1944-84). On the official side, the task was undertaken by the Central Advisory Board of Education, the highest advisory body at the national level which is presided over by the Union Minister for Education and includes all State Education Ministers and some eminent educationists as members. During 1938-43, it appointed a number of committees to examine different aspects of educational reconstruction. In 1944, all these studies were welded together and a comprehensive plan of educational development in the country was prepared.

\* Paper presented at the Round Table Conference on 'The Role of Educational Planning in the Economic Development of the Arab World' at Beirut, Lebanon, February 19-28, 1967.



4. The main features of this plan which covered a period of 40 years (1944-84) are briefly indicated below:

Pre-primary education was to be provided for children in the age-group 3-6, the object being to cater for ultimately one child out of every 21 in the age-group.

Primary education was to be free and compulsory for all children in the age group 6-14. Every primary teacher was to be a secondary school graduate with two years of training and was to receive a decent scale of pay and adequate retirement benefits. Provision was also to be made for ancillary services such as school meals and school health and for the construction and supply of buildings and equipment on an adequate scale.

The secondary schools covered a six-year course (Classes VI-XI, corresponding to the age group 11-17) and were to be of two types: academic and technical. Admission to these institutions was to be highly selective and one child in every five who completed the junior primary school was to be selected on the basis of his capacity and promise. In order that no poor child of ability might be excluded, assistance was to be provided in the form of free places, scholarships and stipends for 50 per cent of the children. Provision was to be made for the appointment of properly qualified, well paid and well trained teachers and for buildings, equipment and ancillary services to children.

In higher education, admission was to be given only to one student out of every fifteen who completed the secondary school. The four-year university course for the first liberal arts degree which then existed was to be converted into a three-year degree course and its first year was to be added on to the high school. Adequate provision was also proposed for financial assistance to poor students of capacity, for maintenance of high standards and for the establishment of a University Grants Committee.

A fairly adequate provision was made for technical education at both the secondary and university levels in order to meet the needs of industry and commerce for skilled technicians and middle-level man-power.

In adult education, the Plan visualized the liquidation of mass illiteracy in a programme spread over 25 years and

proposed to make about 90 million adults literate. It also recommended the development of libraries.

The plan placed great emphasis on the training of teachers. In addition, it proposed to make adequate provision for the education of the handicapped, for provision of facilities for recreation and social service, for organization of youth welfare programmes, for establishment of employment bureaux and for strengthening and improvement of the State Education Departments.

5. No attempt was made in the Plan to relate its proposals to man-power needs or to the total picture of socio-economic development. But it did make an attempt to cost its recommendations. On the assumption that population and prices would remain constant, it calculated that the total educational expenditure in India, which was about Rs. 1.5 per head of population in 1944, would rise to about Rs. 11 by 1984. The Plan did not also prepare any detailed programme of implementation and contented itself by suggesting that the first five years should be devoted to planning, propaganda and provision of the institutions necessary for the training of teachers and that, thereafter, the whole programme should be divided into seven five-year plans during each of which an area or areas of adequate size should be selected and fully developed.<sup>1</sup>

6. *The National Planning Committee.* The non-official efforts at educational planning undertaken during this period were made by the Indian National Congress which decided to prepare a comprehensive plan of national development and appointed, in 1938, a National Planning Committee under the chairmanship of Pandit Jawaharlal Nehru. It appointed two committees for educational planning—one for General Education and the other for Technical Education and Development Research. Unfortunately, the work of these committees was interrupted because of the intensification of the struggle for political freedom which prevented Pandit Nehru and the other members of the Committee from devoting adequate attention to its work. The Committee, however, brought out a volume on Education containing a broad out-

<sup>1</sup> For details, see *Post-War Educational Development in India*, Ministry of Education, New Delhi 1944.

line of all the work that it had done. As compared to the official Plan of Post-War Educational Development, it is a sketchy document. But its principal significance lies in the fact that this was the first attempt to relate proposals of educational development to the overall plan of socio-economic development.<sup>2</sup>

7. *Rejection of These Early Proposals.* The proposals of the National Planning Committee did not have any major impact on the development of educational planning in India. Nor did the Plan for Post-War Educational Development fare any better. It is true that its comprehensive character was generally welcomed. But it was criticized on several grounds among which the following were the more important.

The Plan was spread over too long a period, the general view being that an educational plan should cover about 15 to 20 years.

The objective of the Plan was felt to be too narrow because all that it proposed to create in 1984 was a system of education which would be comparable to the standards already attained in the UK in 1939. It was also felt that the plan borrowed too heavily from and leant exclusively upon the British system of education.

The proposals of the Plan to make highly selective admissions to secondary schools and colleges could not be accepted because, in the post-Independence period, the hunger for education had deepened very considerably and the concept of secondary education for all and collegiate education for as many as possible was definitely being preferred to the highly selective programme in post-elementary education proposed in the Plan.

#### 111. EDUCATIONAL PLANNING IN THE POST-INDEPENDENCE PERIOD SOME BACKGROUND PROBLEMS

8. In the first five years after the attainment of independence in 1947 education was considerably expanded, on an *ad hoc* basis, through annual plans. But educational planning as such may be said to have begun in 1951 when the National

<sup>2</sup> For details, see volume on *Education*, National Planning Committee, Vora and Co., Bombay 1948.

Planning Commission was created and the First Five Year Plan of national development, which also included education as one of its sectors, was launched. As stated before, we thus have an experience of eighteen years of educational planning and implementation. It is this which I shall now proceed to describe and evaluate.

9. *Absence of a Long-term Comprehensive Educational Plan.* Three preliminary observations need to be made here. The first is that there was no long-term plan of educational development on which these five-year plans could have been based. The only documents available for the purpose were the proposals of the National Planning Committee and the Plan for Post-War Educational Development in India (1944-84). But for reasons discussed earlier, the country had rejected both of them. One does not of course regret this. But such rejection creates a new responsibility, namely, the preparation of another long-term plan of educational development which would be in keeping with national aspirations. For various reasons, this task was not attempted and this has undoubtedly been a major weakness of the programme we are considering.

10. Obviously, such a long-term plan will have to be prepared in two stages. The object of the first would be to define the goals of national development and that of the second, to prepare an educational plan which would assist in achieving these goals. By 1950, the first of these two steps had already been taken and the goals of national development were identified and embodied in the Constitution directly or indirectly. These, along with their educational implications, are indicated below.

*Adoption of Democracy and Adult Franchise.* This implies the need to 'educate the masters' through a massive and short-range programme of liquidating adult illiteracy and spreading elementary education. The Constitution, therefore, directed that free and compulsory education should be provided to all children till they reach the age of 14 years. The goal also implies, since 80 per cent of the electorate is rural, an emphasis on expansion of educational facilities in rural areas and the elimination of the gulf which exists, both in quantity and quality, between urban and rural education.

*Adoption of Hindi as the Official Language of the Union on a Date not later than 1965.* This important decision implied a commitment to develop and enrich Hindi by preparing an adequate scientific terminology and producing the necessary literature in all sectors of higher learning. It also emphasized the need to propagate the knowledge and use of Hindi in non-Hindi areas (which cover about 60 per cent of the population). Incidentally, this decision also implies that similar steps would be taken to develop the other modern Indian languages, each of which is spoken by several million people.

*Equality and Social Justice.* The nation committed itself to create a new social order based on equality and social justice. This implies a commitment to provide equality of opportunity—social, cultural, economic, political and educational—to all individuals and especially to the weaker sections of the community such as women, scheduled castes and scheduled tribes.

*Improvement in Standards of Living.* Improvement in the standards of living of the people and ensuring a minimum national income to every family were the major national objectives in the economic field. These implied the modernisation of agriculture and rapid industrialisation through the adoption of science and technology. From the educational point of view, they emphasized the need to relate education to productivity through science education, development of vocational and professional education, the promotion of scientific and technological research, and the discovery and development of talent.

*Social and National Integration.* In a vast multi-lingual, multi-racial, and multi-religious country like India, the need to create a strong and united nation is as urgent as it is difficult. This implies the cultivation of values and attitudes such as love of the motherland, pride in the glorious traditions of its past and faith and confidence in its future, and an awareness of social responsibility. It also implies that the gulf between the educated classes and the masses should be bridged and that the former should be inspired with love and a spirit of service for the latter.

11. Unfortunately, the second step of creating a compre-

hensive and fairly long-term plan of educational development to realize these national objectives was not taken. A National Commission on University Education was appointed in 1948 and another for Secondary Education in 1952. Several other aspects of education were examined by a number of committees; but no single comprehensive plan for all stages and sectors of education was ever attempted. Consequently, educational planning was done for five years at a time, as part of the national five-year plans. It is true that these five-year plans were better than the *ad hoc* annual plans which used to be prepared in the past. But even this horizon for planning is obviously not wide enough and there is a strong view in the country that much better results could have been obtained if a long-term educational plan spread over about twenty years had been prepared in 1951 and if the subsequent five-year plans had been based upon it. This deficiency has now been corrected and the recent National Commission (1964-66) has prepared a perspective plan of educational development spread over twenty years (1966-85).<sup>3</sup> It is hoped that this would help to improve the quality of educational planning in future.

12. *Educational Position in 1951.* The second preliminary observation I would like to make is to emphasize the extremely complex, difficult and gigantic task of educational development which the country had to face in 1951 in spite of the fact that the system of modern education was being built up for over 150 years since its inception at the beginning of the nineteenth century. In this context, three aspects of the problem deserve notice.

*The 'Inappropriateness' of the System.* In the British period the objectives of the educational system were narrow—to train personnel for administration; to create a small class of educated persons; and to teach the English language and through it to introduce the Indian people to the literature, science and philosophy of the West. The system was therefore quite unsuited to the new goals of national development which have been indicated above, and needed a radical transformation if it was to be of assistance in meeting national needs, in realizing national aspirations and in raising the standards of living of the people.

<sup>3</sup> See Annexure (p. 115) for details.

*The Generally Low Level of Standards and Efficiency.* From the point of view of contents, it was the second degree in arts and science that was broadly equal to the first degree in the educationally advanced countries. The curricula were mostly old-fashioned and needed revision. Text-books and teaching materials were of mediocre or poor quality and often in short supply. The system was dominated by external examinations so that it encouraged cramming rather than habits of self-study, independent thinking and problem-solving ability. Science education was largely ignored. Vocational education, particularly at the secondary stage, was very weak. The remuneration, general education and professional preparation of teachers left much to be desired. The machinery of supervision was largely of a 'police' character and tended to keep the educational system rigid and uniform rather than help it to be elastic and dynamic. Physical amenities like campus, playgrounds, buildings or equipment were often unsatisfactory; and the extent of wastage and stagnation was very large at every stage and in every sector. It is true that there was a small proportion of good institutions that maintained adequate standards. These formed the leaven of the system. But the quality of most institutions fell short of expectation.

*Low Level of Expansion Reached and Large Inequality of Educational Opportunity.* The 1951 census gave a literacy percentage of 16.6 only—24.9 for men and 7.9 for women. At the lower primary stage (age 6-9), the enrolment of children was only 38 per cent. The corresponding figures for the higher primary stage (age 10-12), lower secondary stage (age 13-15), higher secondary stage (age 16-17), undergraduate stage (age 18-20) and post-graduate stage (21-22) were 13 per cent, 2 per cent, 1.2 per cent and 0.1 per cent respectively. Even these low national averages concealed wide regional imbalances of development at the State and district levels. There were similar large disparities between the spread of education among the comparatively well-to-do upper and middle social strata, and the lower strata of scheduled castes or scheduled tribes and economically handicapped groups like landless labourers. As the programme of scholarships was extremely meagre, the larger reservoir of talent remained mostly untapped.

13. *Factors Impeding Development.* The third preliminary observation I would like to make is to invite attention to several factors in the Indian situation which made quick educational progress difficult. These include the following amongst others.

*Large Increase of Population.* Owing to improvement in standards of living and health services, annual death rates have fallen from about 40 to about 15 per thousand and the average expectation of life has increased from about 30 years in 1947 to about 50 in 1966. This has inevitably led to a rapid increase in population—the annual increase being from 2 to 2.5 per cent—and the total population, which was about 360 million in 1951, is now about 500 million. In every five-year plan period, the increase of population exceeds the total population of the United Kingdom.

*Lack of Financial Resources.* The poverty of the country has been another serious handicap. The national income per head of population was Rs. 270 in 1951 and it now stands at about Rs. 420 (at current prices). Although the increase in the total national income has been about 4 per cent per year at constant prices, the income per head has increased more slowly—at about 2 per cent per year—on account of the rise in population. Moreover, only a small proportion of the national income was devoted to education—about 1.2 per cent in 1951 and 2.2 per cent in 1966—and the educational expenditure per head rose from only Rs. 3.2 in 1951 to only Rs. 12.1 (at current prices) in 1966.

*Social and Physical Handicaps.* Several physical and social factors also impede educational progress. These include the immense size of the country and the large diversity of its local conditions; the multiplicity of languages—there are about 1,600 languages of which at least 14 are spoken by several million persons each; the predominance of rural areas (83 per cent), the large number of small habitations in the country, more than 440,000 having a population of less than 200; the lack of communications and easy access in several areas, particularly those under forests; social stratification with little vertical mobility; and traditional resistance to the education of girls, which was very strong in certain areas.

*Lack of Human Resources.* In a populous country, it seems

absurd to speak of a lack of human resources. But the fact is that the potential talent in the country has remained under-developed with the result that the highly trained and competent man-power needed for all sectors of national development is in short supply. This is felt all the more keenly in education because the low wages and prospects generally available in the teaching profession do not attract an adequate proportion even of the small stock of trained talent available. Consequently, the ratio of able teachers to total enrolments tends to be reduced, especially as the rates of expansion have been very high so far.

#### IV. EDUCATIONAL PLANNING IN FIRST THREE FIVE-YEAR PLANS (1951-65): SOME ACHIEVEMENTS

14. With these preliminary observations, I shall briefly sum up the principal achievements and failures of educational planning in India during the first three Five-Year Plans (1951-65).

15. In the educational situation as it existed in the country in 1951, it is obvious that the highest priority had to be given to programmes of transformation of the educational system and relating it to the life, needs and aspirations of the people. It is naive to assume that all education is necessarily good either for the individual or for society, and that it will necessarily lead to progress. A good system of education tuned properly to national life, needs and aspirations can be the most potent instrument of national development. But an educational system that is inappropriate or unsuited to national needs can become a great impediment to progress and may even take the country downhill. Equally urgent is the need to raise standards in education because the progress of a country depends ultimately upon the quality of men and women who come out of the schools and colleges year after year and this, in turn, depends upon the quality of education provided in them. But unfortunately, both these programmes received a low priority and this has been the major weakness of our planning. On the other hand, the highest emphasis was placed on expansion of educational facilities at all stages and in all sectors and on the creation of a greater equality of

educational opportunity. These may, therefore, be regarded as the principal achievements of our educational planning.

16. Table I on p. 86 shows the expansion of educational facilities during the first three Five Year Plans.

It will be seen that the total enrolments in the country have increased from 24 million in 1950 to 70 million in 1965, the average annual rate of growth being as high as 7.4 per cent. There is no parallel to this expansion in the earlier history of this country. Even in the contemporary world, this record would be equalled by only a few countries, if any.

17. Some aspects of this unprecedented educational expansion deserve notice, for instance, the following.

*Inevitability.* It may be pointed out that this expansion was, in a way, inevitable. In 1951, the level of existing facilities for education was extremely limited. The attainment of Independence created a great hunger for education, especially among those classes which had been denied it in the past. Moreover, it is next to impossible to resist such popular pressures in a democratic society based on adult franchise.

*Egalitarian Urge.* It must also be recognised that this expansion has played a dynamic part in the transformation of Indian society, which is essentially unequal, where wealth and rank enjoy many privileges while the handicaps of the underprivileged are numerous, and where occupational mobility is small and employment opportunities neither ample nor diversified. In such a society, it is only educational opportunity that can be relatively equalized by public policy. This expansion has, therefore, created new opportunities for several depressed groups and thrown up new leadership and bands of workers. These developments have, on the whole, been beneficial and helped in creating a more evenly balanced economy and society.

*Expansion at the Post-graduate Stage.* Special mention must be made of the more rapid expansion at the post-graduate stage (11.2 per cent per year). This has been one of the best results of educational planning and in this, the University Grants Commission, created in 1956 and financed by the Central Government, has played a very significant role. This stage was emphasized for the obvious reason that it is a crucial sector of 'seed' value which can fertilize the whole field of

Table I  
GROWTH OF ENROLMENTS (1950-65)  
(In thousands)

	1950-51	1955-56	1960-61	1965-66	Average annual rate of growth (percentage)
Pre-Primary	5,177 (18.3)	7,135 (21.3)	8,612 (22.3)	11,773 (26.7)	5.6
Lower Primary (I-IV)	13,651 (37.8)	17,380 (42.6)	24,996 (54.8)	37,090 (69.2)	6.9
Higher Primary (V-VII)	3,228 (13.0)	4,592 (16.5)	7,463 (24.3)	12,549 (35.6)	9.5
Lower Secondary (VIII-X)					
General	1,461	2,300	3,582	5,990	9.9
Vocational	46	70	100	137	7.5
Total	1,507 (6.5)	2,370 (9.3)	3,682 (13.1)	6,127 (19.1)	9.8
Higher Secondary (XI-XII)					
General	157	288	491	834	11.8
Vocational	125	214	358	564	10.6
Total	282 (1.9)	502 (3.1)	849 (4.9)	1,398 (7.0)	11.3
Under-graduate					
General	191	322	434	759	9.6
Professional	50	82	147	227	10.6
Total	241 (1.2)	404 (1.8)	581 (2.4)	986 (3.6)	9.8
Post-Graduate					
General & Professional	22 (0.1)	35 (0.2)	64 (0.3)	208 (0.4)	11.2
Grand Total	24,108	32,419	46,247	70,031	7.4

Source. Report of the Education Commission (1964-66), p. 589.

Notes. (1) Totals do not tally because of rounding.

(2) Figures in parentheses indicate percentages of population in corresponding age-groups.

(3) Enrolment figures at the pre-primary stage include those in class I in States where eleven years are required to reach the matriculation standard, which is reached in ten years in other States.

education and help in raising standards. An improvement of this stage creates good teachers for colleges and helps to improve the quality of higher education. This, in turn, gives good teachers for secondary schools where standards improve; and finally, it results in getting good secondary school graduates as teachers for primary schools to improve standards therein.

*Expansion Slower than Expected or Needed in Certain Sectors.* In spite of the very large overall rate of expansion it has to be pointed out that in some sectors, the expansion has not been as fast as one would have liked. For instance, the expansion at the primary stage, rapid as it is, has not met either the popular expectations or the constitutional directive which laid down that free and compulsory education should be provided by 1960 for all children till they reached the age of fourteen years. Here the difficulties have arisen partly from the growth of population, partly from cultural, economic, physical and social factors and partly for lack of resources. Similarly, in spite of the tremendous increase in facilities achieved during this period, the expansion of vocational and professional education (7.5 per cent per year at the secondary stage and 10.6 per cent per year at the under-graduate stage) has not been able to keep pace with the demands for trained man-power. There is still a shortage of engineers and doctors; and the shortages of middle-level man-power in industry and of all agricultural personnel are greater still.

*Expansion Faster than Expected or Needed in Certain Sectors.* In two sectors—general secondary education and under-graduate education in the liberal arts—the expansion achieved has been even faster than what was expected or needed, and has created several problems. As stated earlier, the Post-War Plan of Educational Development in India had proposed an extremely restricted policy of expansion in these sectors. Although this was not desirable, it was generally felt that expansion in these sectors had to be controlled to some extent to prevent large-scale increases in the number of educated unemployed. In spite of a general acceptance of this policy, the State Governments found it very difficult to resist public pressures and both these sectors expanded at a tremend-

ous rate (9.9 per cent at the lower secondary stage, 11.8 per cent at the higher secondary stage, and 9.6 per cent at the under-graduate stage). This was due to several reasons such as the traditional social status attached to a university degree and the growing hunger for education among the people; the disappearance of the old 'job values' attached to primary education which makes secondary education the 'minimum' and higher education the 'optimum' qualification for any worthwhile job; the absence of adequate employment opportunities for young persons so that many of them are forced to go in for secondary or university education simply because they have nothing else to do; the increasing provision which is being made by State Governments for free secondary education and for the liberal grant of free studentships, stipends and scholarships at the university stage; and a rapid multiplication of educational institutions at this level which has made them easily accessible to young persons in thousands of small and out-of-the-way places. Whatever the reasons, the results of this expansion have been mixed. It has given access to higher education to several social groups which did not have it in the past. At the same time it has made the problem of educated unemployment more complex and difficult and indirectly led to some lowering of standards.

18. One point needs mention in this context. In the case of a family for instance, a minimum expenditure is necessary to provide for the basic amenities or luxuries or cultural advancement. In the Indian situation, a similar relationship holds between expansion on the one hand and programmes of qualitative improvement on the other. In a democracy based on adult franchise, the demand of the people for consumer goods—and education is increasingly becoming an extremely important 'consumer good'—is difficult to resist beyond a certain limit so that a minimum expansion becomes inescapable. For instance, an expansion of about 2 or 2.5 per cent per year is needed merely to keep pace with the growth of population. A similar expansion is needed to clear up the backlog of underdevelopment and an equal expansion would be needed in addition to meet the continually increasing hunger for education. Consequently, an expansion of at least 6 to 7 per cent per year is unavoidable and the funds required for this will have

to be provided. It is only the amount over and above this minimum need—the disposable surplus—that can be allocated to programmes of qualitative improvement or internal transformation. It has, therefore, often happened that the first version of the educational plan started with a fairly big allocation in which adequate funds were provided both for quantitative expansion and qualitative improvement. But when these funds were reduced for a variety of reasons, there was an upper limit to the cut which could be made in programmes of expansion; and consequently, the axe had to fall very largely on the vital programmes of qualitative improvement. The only way out of the situation seems to be to accord a higher priority to education and to obtain larger allocations. The other alternative of resisting the public demand for expansion is easy to prescribe. But it would be as difficult to follow as the proverbial belling of the cat.

19. *Equalization of Educational Opportunity.* Equally outstanding has been the progress made in the first three Five Year Plans in reducing the sharp inequalities of educational opportunity that existed in 1951. The opportunities for free education have been considerably expanded. Elementary education is free or very largely free in all parts of the country. Two States provide free secondary education also and in others liberal free studentships are available at the secondary stage. In two States even higher education is free. There is considerable provision for the supply of free books and some provision for ancillary services like school meals and school health. The scholarship programme was extremely small in 1947. It has now expanded immensely and about seven per cent of the total educational expenditure is incurred on student aid. The inequalities of development at the State and district levels have been reduced to some extent and the educational gap between urban and rural areas has been somewhat bridged. There has been a large increase in the provision of facilities for the education of handicapped children, and under-privileged groups like scheduled castes and scheduled tribes are now taking increasingly to education. One important programme which has been successfully implemented is to promote higher education among these groups by



providing a scholarship to almost every student who completes the secondary school and desires to study further.

20. It may be of interest to give details of the extent to which the gap in the education of boys and girls has been reduced during this period. This will be seen from Table II on p. 91.

It will be seen that the rate of expansion of the education of girls has been faster than that of boys and that the gap between them and the boys is being slowly but steadily bridged.

21. *Programmes of Qualitative Improvement.* Although programmes of qualitative improvement and internal transformation of the educational system to relate it intimately to the life, needs and aspirations of the people were given a lower priority during this period, it would be wrong to assume that they were neglected altogether or to accept, at its face value, the oft-repeated statement that educational standards have seriously gone down. The truth is that this has also been a mixed picture of light and shade, of certain achievements in some sectors and of several shortfalls in others.

22. I may begin this discussion with teachers on whom, in the last analysis, depends the quality of education. Throughout the world, the general experience has been that as the material rewards of teachers are elevated, it becomes possible to recruit into the profession individuals of a continually improving quality and with more extended professional training; and in proportion as the competence, integrity and dedication of teachers have increased, society has been increasingly willing—and justifiably so—to give greater recognition to their material and economic status. A similar development has taken place in India during the last fifteen years and may take place on an accelerated scale in the years ahead. Table III on p. 92 shows the improvement in the salaries of teachers effected during this period.

23. It will be seen from Table III that there has been considerable improvement in the remuneration of teachers although a part of it has been offset by the rise in prices. Of course, this could and should have been better. Their general education and professional training have also improved, partly as a result of the improvement in remuneration, partly because of the expansion of educational facilities and partly because of

Table II  
ENROLMENT OF GIRLS (1950-1965)

	1950-51	1955-56	1960-61	1965-61 (estimated)
1. Classes I-V				
(i) Total enrolment (in 000's)	5,385	7,639	11,401	18,145
(ii) Number of girls for every 100 boys enrolled	39	44	48	55
(iii) Proportion of girls in mixed schools to total enrolment of girls (percentage)	74.8	79.2	82.1	85.0
2. Classes VI-VIII				
(i) Total enrolment (in 000's)	534	867	1,630	2,839
(ii) Number of girls for every 100 boys enrolled	21	25	32	35
(iii) Proportion of girls in mixed schools to total enrolment of girls (percentage)	26.7	51.8	68.9	78.0
3. Classes IX-XI				
(i) Total enrolment (in 000's)	163	320	541	1,069
(ii) Number of girls for every 100 boys enrolled	15	21	23	26
(iii) Proportion of girls in mixed schools to total enrolment of girls (percentage)	21	29.7	36.4	40
4. University Stage (General Education)				
(i) Total enrolment (in 000's)	40	84	150	271
(ii) Number of girls for every 100 boys enrolled	14	17	23	24
(iii) Proportion of girls in mixed institutions to total enrolment of girls (percentage)	56.0	53.1	50.2	48.2
5. Professional Courses (Collegiate Standard)				
(i) Total enrolment (in 000's)	5	9	26	50
(ii) Number of girls for every 100 boys enrolled	5	7	11	14

Source. Report of the Education Commission (1964-66) p. 136.

the special efforts made to raise qualifications, provide professional training and introduce better selection procedures for teachers of all categories.

Table III  
AVERAGE ANNUAL SALARIES OF TEACHERS IN INDIA  
(1950-51 to 1965-66) (in Rupees)

Type of Institution	Average annual salary of teachers (at current prices) in				Average annual salary in 1965-66 at 1950-51 prices
	1950-51	1955-56	1960-61	1965-66	
A. Higher Education					
1. University Departments	3,759 (100)	5,456 (145)	5,475 (146)	6,500 (173)	3,939 (105)
2. Colleges of Arts and Science	2,696 (100)	3,070 (114)	3,659 (136)	4,000 (148)	2,424 (90)
3. Professional Colleges	3,948 (100)	3,861 (98)	4,237 (107)	6,410 (162)	3,885 (98)
B. Schools					
4. Secondary Schools	1,258 (100)	1,427 (113)	1,681 (134)	1,959 (156)	1,187 (94)
5. Higher Primary Schools	682 (100)	809 (119)	1,058 (155)	1,228 (180)	741 (109)
6. Lower Primary Schools	545 (100)	652 (120)	873 (160)	1,046 (192)	634 (116)
7. Pre-Primary Schools	914 (100)	770 (84)	925 (101)	1,083 (118)	656 (72)
8. Vocational Schools	1,705 (100)	1,569 (92)	2,041 (120)	2,887 (169)	1,750 (103)
ALL TEACHERS	769 (100)	919 (120)	1,218 (158)	1,476 (192)	895 (116)
9. Cost of living index for working classes					
	100	95	123	165	
10. National income per head of population (at current prices)	267 (100)	255 (96)	326 (122)	424 (159)	

Source. Report of the Education Commission (1964-66), p. 47.

Note. The figures within brackets give the index of growth on the basis of 1950-51=100.

24. At the institutional level, it is possible to say that the number of good institutions has increased considerably. But this advantage has been offset by an increase in the number of institutions which function at a sub-standard level. In particular, a large proportion of the new institutions that have come up during this period in response to popular demand tend to be small and uneconomic in size and badly planned with regard to their location. There is obvious need to plan the location of educational institutions on proper lines to avoid overlapping and duplication and to promote the creation of institutions of optimum size which tend to be more economic and efficient. An Educational Survey of the entire country was, therefore, carried out to assist in this programme (1957-59). It has been able to influence public policies to some extent but a good deal is still left to be desired. A second Educational Survey has, therefore, been undertaken recently (1965) and it is proposed to take vigorous steps to see to it that its recommendations are more rigorously implemented in practice.

25. At the level of educational programmes, it has been possible to carry out several improvements. For instance, the teaching of science has improved to some extent and the facilities provided for it have increased, both in secondary and higher education. Several attempts have also been made to improve curricula and teaching materials, to adopt better methods of teaching and to implement some reforms in the examination system. But the overall impact of all these measures is far too inadequate and has failed to make any significant change in the traditional system of teaching and evaluation. This is due to several reasons. The allocation of inadequate resources is obviously an important cause. When allowance is made for the rise in prices, it is found that the investment in the different sectors of education has, by and large, hardly been able to keep pace with the increase in enrolments. Consequently, the per capita facilities available to students in a large proportion of educational institutions have decreased rather than increased in real terms. Another important factor has been the failure to overcome traditional resistances amongst the teachers and administrators, who have not shown any great eagerness to innovate and to experiment, and have largely contented themselves to move in the

old, familiar, beaten tracks. Of still greater significance has been the failure to utilize even the existing facilities in an intensive manner and to create a climate of hard work and dedication. It is here that one comes across a curious paradox. The industrially advanced countries command large financial and material resources so that they can afford less intensive utilization and need not work very hard to obtain good results. Their material assets can compensate for human failures. On the other hand, the developing countries have to make up their shortfalls in financial and material resources through human efforts. Their need for hard work, dedication and intensive utilization of available resources is, therefore, far greater. Unfortunately, it is precisely in these countries that one finds inadequate or wasteful utilization of existing resources, poorer motivation and less intensive work. To change this human situation is probably the most important problem to be faced in the educational planning in developing countries.

26. At the level of students, there is enough evidence to show that the number of first-rate students is much larger now than at any time in the past. At the same time, the number of ill-motivated students with sub-standard attainments has increased, especially because there is a large rush of first-generation learners whose special needs are not being adequately taken care of at present. Consequently, the serious problems of wastage and stagnation still continue to dominate the scene; and some weaknesses of the system, particularly student unrest in higher education, may even be said to have been accentuated.

27. The present situation in respect of educational standards is obviously too unsatisfactory to leave any room for complacency. At the same time, it is not fair to oversimplify the problem, go to the other extreme and roundly assert that the standards have deteriorated. Such a statement would do great injustice to that small band of teachers and institutions who have struggled to maintain standards in the face of heavy odds and whose achievements enable us to face the task ahead with confidence. A more balanced view would be that the present standards of education, irrespective of whether they have risen or fallen in any given institution or

sector, are inadequate to meet the national needs, that the gap between these standards and those in the developed countries have become wider during the last 20 years because the advanced countries have made tremendous progress while nothing comparable to it has been seen in the developing nations, and that these standards could have been much better if even the existing facilities had been intensively utilized and a climate of hard work and dedication had been created.

28. *Educational Expenditure.* Before this review of educational developments in the first three Five Year Plans is closed, I shall briefly refer to the growth of total educational expenditure. This is shown in Table IV below.

Table IV  
TOTAL EDUCATIONAL EXPENDITURE IN INDIA  
(1950-51 to 1965-66)

<i>Item of Expenditure</i>	1950-51	1955-56	1960-61	1965-66 (estimated)
1. Total educational expenditure from all sources (Rs. in millions)	1,444	1,897	3,444	6,000
2. Index of growth	100	166	301	524
3. Educational expenditure per capita (Rs.)	3.2	4.8	7.8	12.1
4. Index of growth	100	150	244	378
5. Total national income at current prices (Rs in millions)	95,300	99,800	141,000	210,000
6. Index of growth	100	105	148	220
7. National income per capita at current prices (Rs.)	266.5	255.0	325.7	424.4
8. Index of growth	100	96	122	159
9. Total educational expenditure as percentage of national income	1.2	1.9	2.4	2.9
10. Index of growth	100	158	200	242
11. Average annual rate of growth of total educational expenditure (percentage)	Plan I 10.6	Plan II 12.7	Plan III 11.8	Plans I-III 11.7

Source. Report of the Education Commission (1964-66), p. 465.

29. It will be seen that educational expenditure (at current prices) has increased from Rs. 1,444 million in 1950 to Rs. 6,000 million in 1965, at 11.7 per cent per year. This is about 2.2 times the rate of growth of national income and 1.6 times the rate of growth of enrolments. Most of this expenditure came from Government funds, Central and State, whose contribution increased from 57 per cent in 1950 to 71 per cent in 1965. The contributions of all other sources declined from 20 to 15 per cent, the local funds from 11 to 6 per cent and private sources such as donations and contributions from 12 to 7 per cent.

30. The analysis of this expenditure according to objects is given in Table V on p. 97. It will be seen therefore that the expenditure on all sectors of higher education has increased rapidly. Most of the expenditure incurred on buildings, scholarships and hostels also falls in the sector on higher education. The expenditure on school education which has been a comparatively neglected sector was, on the whole, on the low side.

#### V. EDUCATIONAL PLANNING IN INDIA: SOME EMERGENT PROBLEMS

31. I shall now turn to the discussion of some of the important problems that have emerged in India in the light of the experience gained during the last fifteen years. Some of these are peculiar to India; quite a few are common to other developing nations; and some are shared even by the educationally advanced countries.

32. *Relating Education to the Life, Needs and Aspirations of the People.* Education has two aspects: the universal and the local. Certain objectives of education are universal in the sense that they are true of all nations and of all times. For instance, education should strive to secure a harmonious development of the human personality and become a major tool for man's eternal and fearless search for truth. But these absolute goals of education, like the soul of man in which I am old-fashioned enough to believe, can be realized only through their embodiment in local terms spelt out separately for each individual and each country. The education of an individual, for instance, will share a large area in common with all other individuals in his society and even the world over. But certain aspects of

Table V  
GROWTH OF EXPENDITURE ON EDUCATION IN INDIA  
(1950-51 to 1965-66) (Rs. in 000's)

Type of Institution	1950-51	1955-56	1960-61	1965-66	Average annual rate of growth %
Universities	49,052 (4.3)	79,804 (4.2)	141,389 (4.1)	270,000 (4.5)	12.0
Research Institutions	6,256 (0.5)	13,904 (0.7)	26,986 (0.8)	65,000 (1.1)	16.9
Colleges for Arts & Science	71,714 (6.3)	116,474 (6.1)	209,153 (6.1)	327,500 (5.5)	10.7
Colleges for Professional Education	42,194 (3.7)	70,008 (3.7)	158,041 (4.6)	350,000 (5.8)	15.1
Colleges for Special Education	2,224 (0.2)	3,635 (0.2)	9,125 (0.3)	17,500 (0.3)	14.7
Boards of Intermediate Education	5,338 (0.5)	13,240 (0.7)	24,133 (0.7)	45,000 (0.8)	15.3
Secondary Schools	230,450 (20.1)	376,114 (19.8)	689,117 (20.0)	1,181,000 (19.7)	11.5
Higher Primary Schools	76,990 (6.7)	154,050 (8.1)	429,219 (12.5)	717,500 (12.0)	16.0
Lower Primary Schools	364,843 (31.9)	537,272 (28.3)	734,461 (21.3)	1,220,500 (20.3)	8.4
Pre-Primary Schools	1,198 (0.1)	2,499 (0.1)	5,873 (0.2)	11,000 (0.2)	15.9
Vocational Schools	36,944 (3.2)	54,508 (2.9)	114,091 (3.3)	250,000 (4.2)	13.6
Special Schools	23,335 (2.0)	26,529 (1.4)	31,997 (0.9)	39,920 (0.7)	3.6
Total (Direct)	910,539 (79.6)	1,448,069 (76.4)	2,573,587 (74.7)	4,494,920 (74.9)	11.2
Direction & Inspection	27,364 (2.4)	40,006 (2.1)	70,123 (2.0)	114,009 (1.9)	10.0
Buildings & Equipment	99,270 (8.7)	196,358 (10.4)	428,158 (12.4)	666,055 (11.1)	13.5
Scholarships	34,456 (3.0)	82,172 (4.3)	200,222 (5.8)	420,035 (7.0)	18.1
Hostels	18,264 (1.6)	26,610 (1.4)	43,149 (1.3)	95,463 (1.3)	11.7
Miscellaneous	53,928 (4.7)	103,395 (5.4)	128,562 (3.8)	209,518 (3.5)	9.5
Total (Indirect)	233,282 (20.4)	448,541 (23.6)	870,214 (25.3)	1,505,080 (25.1)	13.2
GRAND TOTAL	1,143,821 (100.0)	1,896,610 (100.0)	3,443,801 (100.0)	6,000,000 (100.0)	11.7

Source. Ministry of Education, Form A.

Note. Figures in the parentheses indicate percentages to the total.

it will have to be planned to suit his own uniqueness and to draw out the best in him. This applies to every nation. While certain goals and programmes of education will have to be common to all nations, each nation will have to pursue them in the local context of its own traditions, the genius of its people, its own short-term problems and long-term aspirations. The combination of these physical, social, political and cultural factors is unique in each country so that, in spite of the pursuit of common goals, the physical pattern of the education of a country and its programmes of development remain equally unique. It is the duty and responsibility of each country to evolve this unique educational programme which will draw out the best in the nation and help it to solve its pressing problems or to realize its long-term aspirations. The experience of other countries and the advice of friendly nations will help in this task; but it cannot be a substitute for self-exertion by the country itself, partly because of the uniqueness of the situation of each nation, but mainly because such exertion is, in itself, the best part of the education which a nation needs.

33. This unique educational programme or the long-term perspective plan of educational development is based on the assumption that education is the most important tool of national development and should be used as such and its principal object is to relate the national system of education to the life, needs and aspirations of the country. Such a plan is the foundation of all educational planning, and without it the preparation of short-term plans will be as difficult as to guide a ship to its destination without a mariner's compass. The preparation of this plan, however, cannot be a responsibility of the educator alone, and not only of the educational planner. Its framework is set by national faith, goals and resources; and in the determination of these, the educator plays his own role as a citizen, but his is not the only voice, nor can he have the last word. But once this framework is set, it is his responsibility to work out the implications of this framework in terms of educational goals and programmes and to integrate education with life and the different sectors of education with one another. As Brubacher has observed, 'the schools can only complete and consolidate a change decided

elsewhere, whether by ballot or by bullets'. Perhaps the most important contribution of the Indian Education Commission (1964-66) is to provide such a long-term plan. The task before the Central Ministry of Education is now to get its acceptance by the appropriate authorities and to devise a suitable machinery by which it can be revised and kept continuously up to date.

34. *The Special Problems of Developing Nations.* This task of preparing the perspective plan of educational development faces all nations, but in executing it the developing countries have to confront some special problems. Some of these are indicated below.

(a) *Telescoping of Development.* The only effective method to ensure world peace and even the survival of man is to reduce the gap, which is already wide and is continuously widening still further, between the developed and the developing nations; and the key to this lies in education. The developing countries, therefore, thus face a gigantic task: they have to begin at a lower level, where the developed nations stood about 100 years ago (or even worse), progress at a pace which is faster than even the fast pace at which the developed nations are progressing at present and, within a short time, say, the life-span of a generation at the most, to reduce the gap between them and the developed nations to marginal proportions. I am afraid the urgency, significance and operational implications of this 'telescoping of the development' are not adequately realized. It cannot be done by a mechanical imitation of what the developed countries are doing now or did at some previous point in their history. It will need bold and imaginative thinking, unorthodox new approaches unsanctified by the halo of tradition or the prestige of contemporary practice, elimination of some of the stages through which the developed countries have passed, and avoidance of their 'errors' revealed by hind-sight.

(b) *Inadequacy of Resources.* The gigantism of this task before the developing nations is unfortunately equalled only by the paucity of their resources. Their national income is small and they can mobilize only a comparatively meagre portion of this income for national development because their 'disposable surplus'—after providing for the minimum needs of mere subsistence—is relatively smaller still; the demands of

development on the meagre capital thus available are numerous; and consequently, the resources allotted to education become extremely limited. In India, for instance, the national dividend is only Rs. 420. The country now spends about 3 per cent of this on education—a low figure no doubt. But it cannot be ignored that an investment of 3 per cent in education in a national dividend of 60 dollars is a far greater and more difficult sacrifice than an investment of 6 per cent in education in the USA, where the national dividend is 3,000 dollars. And yet India spends only Rs. 12 per head of population on education—an amount which an average American spends annually on cigarettes or may spend, in about ten years, on sedatives. The picture may not be so dark in every set of such comparisons. But the order of difference in available resources is about the same and the educational planner in a developing country is called upon to perform the magic trick of squeezing a 'Western' system of education into an 'Eastern' budget. It is obviously far from easy to meet this situation. It calls for the strictest of economies; optimum utilization of every available cent; ruthless elimination of all forms of waste; rational determination of priorities; efficient administration of new educational technologies based on science which can provide substantial improvement in education at comparatively small or even reduced expenditures; the adoption of programmes of part-time and own-time education on a large scale; and above all, an emphasis on the human factors involved, through intensive utilization of existing facilities, through hard work and dedication which can largely compensate for the lack of material resources.

(c) *The Development of Indigenous Languages.* The state of development of a language is a good index of the cultural, scientific and educational development of a nation. The languages of the developing nations are generally underdeveloped; and one of their major responsibilities is to develop these languages to a level where they become fit vehicles for modern knowledge. The problem has obviously no counterpart in the developed nations. This will imply the preparation of scientific terminologies and the production of needed literature in these languages—a very difficult task which a developing country has to do itself. This will involve a large programme of

translations or adaptations of books from the developed languages. In this, insurmountable difficulties are often created by copyright restrictions. If the developing countries have to grow, the developed countries have to 'export' knowledge to them, either free or even with a subsidy. It is a pity that copyrights have become the biggest stumbling block in the free flow of knowledge across international frontiers. I wish all the developed countries would have a scheme under which a developing country would be free to translate and adapt any book it likes and the developed countries would assist the programme by securing the needed permission and by paying the royalties to the persons concerned, out of their own revenues and treating the expenditure as 'aid' to the developing country. Unless some such programme of international collaboration is evolved, the concept of 'intellectual property' will prevent rapid development of education in the developing areas of the world.

(d) *Absence of Essential Social Parameters.* Another major difficulty which educational planners in developing countries have to face is the absence of social parameters essential to successful educational planning. For instance, these countries do not often have stable political systems, strong and progressive governments, booming economies, efficient and dedicated bureaucracies, or strong public opinion in support of educational development. On the other hand, they are often dominated by vested interests and reactionary forces opposed to radical educational reform. Not infrequently, their political parties are immature, more interested in exploiting education for their own political ends than in educational development in national interest; and policies and programmes are often set up, modified or abandoned more for personal glorification or individual rivalries than for academic reasons. The educational planner can do little to change these conditions; but they do make his task more difficult and often lead to bitter frustrations that could have been avoided.

It is hardly necessary for me to discuss the issue further. I have said enough to show that educational planning in a developing society is so different in kind and so much more difficult than in a developed country. It needs an entirely new approach to its solution—an approach which will mostly have

to be discovered by the developing countries themselves. It will not do to leave this matter to 'consultants' who can be fairly readily imported at present—thanks to the generosity of international organizations. While a careful study of the programmes of other countries is essential and while we should profit by their experience to the fullest, there is no escape for educational planners in developing countries from outgrowing their tutelage to the developed countries and no real substitute for indigenous, hard and serious thinking involved in securing rapid educational development in the midst of such adverse circumstances.

35. *Some Problems of Short-term Planning and Implementation.* The very first problem one encounters in short-term planning is to obtain adequate resources for educational development. Here education has to compete with security as symbolised by the police and the army and also with other sectors of development, particularly agriculture, industry, power, irrigation, transport and communications, and health (including family planning).

(a) *Priorities as between Education and Other Sectors.* How shall the priority of education be determined *vis-a-vis* these sectors? These are essentially political decisions. But some points are obvious. For instance, defence or security will always claim priority because a nation must live before it can grow. But is the building up of armaments the way to real security? The Romans invented the slogan of avoiding war by being ever prepared for it. We still work on the basis of this philosophy without realising how costly it has been and how obstructive it is to human progress. We also do not realise another important point. In the pre-nuclear age, this policy was not very costly and at least conferred a fair degree of security. In the nuclear age, however, this has become mostly beyond comparison; and at the same time, it has resulted in decreasing human security, irrespective of who wins or loses. Strengthening of defence has thus become ironically enough synonymous with a planned decrease in human security and the very survival of man has been placed in the balance. In the developed countries, the enormous expenditure on defence is the major impediment to giving adequate aid to the developing nations—they spend about 10 per cent of the

national income on defence and less than one per cent on aid. If these proportions could be reversed the world would be safer, wars could be avoided and the progress of the developing countries would be tremendously accelerated. In the developing countries, the attempt to ride simultaneously, and with equal zest, the two horses of defence and development savours of quixotic romanticism; and very often, the future of education is decided, not in the Ministry of Finance but in that of External Affairs. One can only wait and pray for a change in this situation.

What is the priority for education *vis-a-vis* the development of the economy? It has been established that educational and economic growth correlate satisfactorily with each other. But this co-existence does not establish a causal relationship. This is mainly because not all education is related to productivity. Where this relationship is clear, as in the case of agricultural or technical and technological education, the priority is easily obtained. But is it equally true of general education, especially the bookish, literary, academic and ivory tower education that most developing countries now provide? There are obviously cases where economic growth is held up for lack of proper educational development. Such situations have to be avoided. But is it not also true that educational growth sometimes outstrips economic growth and creates difficult problems? This has happened, for instance, in the State of Kerala in India. This is educationally the most advanced part of India, but the type of education is inappropriate. Consequently, the economy has not developed in proportion to the spread of education. This has led to two serious evils. On the one hand, education continues to expand still further—there are irresistible forces built into the system itself for this—and accentuates the evils of educated unemployment. On the other hand, the large and increasing expenditure on education reduces the funds available for economic growth itself and accentuates these evils still further. It is in a situation of this type that frustrated able young men and women first turn 'pink' and then 'red'. It is not probably an accident that educationally the most advanced State in India also happens to be dominated by the Communist Party. It is obvious that educational and economic growth have to take place side by side



so that they promote and not hinder each other. But how is this magical balance to be secured? The same argument can be extended to the determination of the priority between educational development in other sectors. The former needs priority because no major problems of national development can be solved (e.g. population control, modernisation of agriculture, development of industry, etc.) except through educational development. On the other hand, one can argue that the latter needs priority because no educational problems, either quantitative or qualitative, can be solved unless these other national problems are also solved. Both the programmes will, therefore, have to be pursued side by side.

In a situation of this type, the decisions on priority ultimately tend to be taken on political grounds and a good deal would depend upon the ideals of the political party in power, the roots and upbringing of its leadership, and the forces which help it to come into power or to continue in it. In India, the funds allocated to education in the first three Five Year Plans were between six and seven per cent of the total, which implies a low rather than a high priority. The general picture is that the leftist parties tend to emphasize education more, although one would expect the rightist or centrist parties to do so.

For educational planners, the situation is unfortunate. They can do so little to influence the forces that take these crucial decisions on which the entire outcome of their work depends. All that one can do is to resign oneself to God's will and hope for the best. There is also a dangerous alternative which some might (and do) try; they may join politics and strive to influence the decision-makers. I am not temperamentally disposed to adopt it myself; but here are three cheers and good luck to all!

(b) *The Comprehensive vs the Selective Approach.* The problem does not end with the allocation of resources to education as a whole. Since the overall resources will fall short of the needs, two major problems arise: (i) selective *vs* comprehensive approach; and (2) distribution of available resources to different sectors. Both the issues are purely internal within the domain of education and it is the exclusive responsibility of educational planners to solve them.

The first refers to the overall approach to be adopted. Shall we adopt the comprehensive approach and try to do something in every sector, or shall we adopt the selective approach and go in a massive way for a few sectors or programmes of crucial significance? This is the principal debate in educational planning in India at present.

In all the first three Five Year Plans, we have adopted the comprehensive rather than the selective approach. The policy can easily be rationalised on the ground that all the different sectors of education are interdependent and that it is not possible to develop any one without simultaneously developing the others too. It is also the line of least resistance because it saves one from the terrible and difficult responsibility of making choices or determining priorities. It also gets considerable support in the 'democratic' context because almost every programme in education has some godfather, or what is often worse, some godmother—they have a genius for espousing forlorn causes—so that the distraught Education Ministers are forced to adopt the comprehensive approach to please all. Even with regard to educational institutions a selective approach is to be preferred to a comprehensive one, because the scarce resources available should be utilised for the promotion of excellence in selected institutions and not frittered away by giving small but ineffective help to all. The escapist policy of a comprehensive approach which started with the objective of pleasing all has succeeded only in pleasing none and has failed to achieve worthwhile results in any sector. There were, indeed, some exceptions. For instance, a deliberate choice was made in the school plan—and continued since—to develop technical education; and it has yielded good results. Attempts to develop science education and in-service education of teachers made by the University Grants Commission are two other successful examples of this policy. At the institutional level, the establishment of the five Institutes of Technology which maintain peaks of excellence, and the University Centres of Advanced Study which attempt a symbiotic combination of research and teaching to attain excellence at the post-graduate stage, are other examples of the successful application of the selective approach. One

however, feels that this policy should be adopted on a larger scale in the future.

I do not want to minimize the difficulties and risks inherent in the selective approach. It is far from easy to select the crucial sectors which can help development most. The criteria for selection are not easy to define and even when defined in theory, they present several problems in practical application. It requires a great deal of political courage to refuse to select sectors which may happen to be in public demand and this is not easy to come by. In selecting institutions for special aid, the administrative machinery must have integrity and competence and must not only be fair to all but also appear to be fair. The actual selections made must also command the confidence of the academic community. If this does not happen, the technique of selective approach may cause frustration and demoralisation rather than help in raising standards. But these difficulties must be faced and the risks must be taken because the alternative policy of a comprehensive approach has the greater risk of reducing all to an ineffective mediocrity or even worse.

(c) *Allocation of Resources to Different Educational Sectors or Programmes.* The second important issue in this context is to allocate the total resources available for education to the different programmes undertaken. This also is a ticklish and difficult problem and in trying to tackle it, the educational planner often finds himself in an uneviable position of being called upon to distribute equal disappointment for all. There is no single answer and each country will have to solve it for itself in a manner that best suits its own local conditions.

A reference to Table V given earlier will show how resources were allocated to different sectors of education in the first three Five Year Plans. Hardly any comment is needed on this except to say that owing to the adoption of the comprehensive approach, the allocation of funds to different sectors shows only marginal variations from plan to plan, except in two sectors—professional education, and scholarships. One point, however, is of general interest. In India, very high priority is given to primary education in theory. In fact, according to the Constitutional Directive, free and compulsory education should have been provided by 1960. But it will be seen that

allocations to primary education have, in actual practice, remained on the low side. Whether this has been a right policy or not is an important controversy in India today. On the one hand, there is a strong view that primary education should be accorded the highest priority; on the other hand, there is also a view that primary education, which contributes to social justice but not to economic growth, should be soft-pedalled and that greater emphasis should be placed on post-primary education. The policy adopted in India, however, is more the result of political forces than of an academic debate: the upper and middle classes who are mainly interested in secondary and higher education are nearer the centres of power and better able to influence public policy than the dumb millions whose interest lies in the development of primary education.

More difficult problems relating to allocation are raised in dealing with qualitative improvement. What would be a better and more fruitful investment in raising standards—an increase in the salaries of teachers, a better provision of textbooks and reading materials, or improved supervision? Should one emphasize the lengthening of the training course for teachers, or provide more liberal in-service education? Should there be a general rise in the salaries of teachers or should higher incentives be provided on the basis of work done? Should we reduce the class size even at the risk of keeping the salaries of teachers at a lower level, or would it be desirable to increase the class size and provide a better teacher? A hundred questions of this type arise, and as very few studies in this field have been carried out, most educational planners have been compelled to take *ad hoc* decisions on all such matters as they arise from time to time. If our educational planning is to be made more rational and meaningful, it is necessary to conduct 'productivity' studies which will try to relate qualitative improvements to different types of in-puts, either singly or in combination.

(d) *Project Preparation.* Another weakness of educational planning in India is the lack of emphasis on 'project' preparation. In industry, for instance, one would not think of undertaking a new programme unless a detailed project has been prepared with the utmost care and thoroughness. Such a pro-

ject generally outlines all the stages of development, therefore foresees all difficulties likely to arise, provides for materials and personnel needed, and takes care of all the recurring and capital costs. But more often than not, educational plans are launched with very inadequate preparation and soon land themselves into difficulties. Educationists are never tired of asserting that the cost of education is not 'expenditure' but 'investment'. If this argument is valid, all the consequences of treating educational expenditure as investment will follow and society will be justified in asking for a cost-benefit analysis or in demanding that the 'returns' on this investment should be adequate. But questions of this type prove irksome at present, because education as an undertaking is probably one of the most inefficient enterprises. For instance, if one were to run an air service where half the planes that left the ground failed to arrive at the destination, the service would go bankrupt in no time. Yet in a system with large wastage and stagnation, this is precisely what happens and yet no one seems to be worried about it. In fact, of all the products of social endeavour education is probably the one commodity which an individual or society pays for and does not get. I think that we have a lot to learn from business organisations to improve educational planning. The careful and detailed preparation of projects for the programmes undertaken can be one such important lesson.

(e) *Planning from below.* Yet another weakness of our educational planning is that it tends to descend from above rather than rise from below. The two processes are not exclusive and one needs both of them in a proper combination. But what one regrets to note in the present situation is that the process of planning from below is almost non-existent. In India, educational planning really starts at the top—with the Planning Commission in Delhi which decides the overall size of the Plan and the allocation to each sector including education, and prepares some guide-lines on the basis of which each State prepares its own plan—overall as well as for education. The guide-lines are fairly broad in scope and the States are free to make changes in the light of local needs. These State plans are the real basis of the educational plan. When they are added up and the total is further increased by the

Central plan—for those aspects of education for which the Central Government is responsible—the national education plan is evolved and the implementation starts. It will be seen that in this process there is no room for planning at the institutional level, nor at the district level. A district in India is an area of about 10,000 sq. kilometers and an average population of 1.5 million and this has to be the basic unit of educational planning since the variations in educational development (or its background) from district to district are enormous. But it has not been possible to initiate district plans of educational development. This is one area which needs close attention and where studies and pioneering experiments will pay rich dividends.

(f) *Emphasis on Programmes Which Need Talent and Hard Work.* At present, there is an over-emphasis in the plans on targets for expansion and expenditure. The reasons for the first of these weaknesses have already been discussed. The second springs from the fact that the Plan is not a 'total plan' which deals with all aspects of education in an integrated manner, irrespective of the fact whether some of them need or do not need finances. Its sole effort is to outline how funds allocated to education are spent. This approach brings in several evils: expenditure becomes an end in itself and, instead of trying to find out whether the physical targets prescribed in the plan can or cannot be achieved at lesser cost, and taking pride in the performance if they can be so achieved, there is usually an attempt to show that all the funds allocated have been spent or even over-spent. Moreover, in this race for expenditure, it is but natural that programmes where money can be easily spent (e.g., expansion of enrolments or construction of buildings) get undue emphasis, although their educational significance is comparatively small. On the other hand, there is a tendency to neglect several crucial programmes of educational development which cost less, e.g.,

production of literature in the modern Indian languages needed for their adoption as media of education at the university stage,  
educational research,  
examination reform,

preparation of school text-books and teaching and learning materials,  
 in-service education of teachers and officers of the Education Departments,  
 improving techniques of supervision,  
 improving contact with the local communities and parents,  
 providing enrichment programmes and guidance to gifted students and some special assistance to retarded or backward ones.

These programmes call, not so much for money as for determined effort, organization, talent and hard work. Where money is scarce, they need the highest emphasis possible; but they get little attention in a situation where expenditure is over-emphasized and becomes a target by itself.

(g) *Lack of Adequate Research, Evaluation and Training.* Yet another deficiency in the present system of educational planning in India is the absence of adequate research or an efficient machinery for continuous evaluation, and of an adequate and properly trained staff for planning units, especially at the State levels. One need not, of course, wait for all the needed knowledge before one begins to plan. Just as one cannot learn swimming without entering water, the only practical method to plan is to make a start on the basis of the best knowledge available at the time. But such an imperfect start heightens the need to develop programmes of research and evaluation as continuously and as intensively as possible.

In this context, I would like to refer to one important and practical point, viz, where should this research and evaluation be developed—in the universities or in special institutions created for the purpose but outside them? My own view is that it is much better to develop these programmes in the universities rather than outside them.

In the developing countries, we often commit a mistake in emphasizing the role of special institutions for research. They are created on the plausible ground that the universities are weak and will not be able to undertake the responsibility. But once special institutions come into existence, they become a vested interest in themselves, monopolising almost all the resources available—which, in their absence, would have gone to the universities—and thus tend to keep the universities weak.

This has a deleterious effect on national development in the long run. Moreover, since research personnel is limited, it is most advantageous to locate it in the universities where it can be used not only for research but also for teaching to some extent and for preparing the research personnel for future needs.

In the same way, it is desirable to involve universities in evaluation also. In India, evaluation is a responsibility of the Ministry of Education and the State Governments themselves. They do this continuously from year to year when annual plans are framed and also in every quinquennium when the five-year plans are being formulated. Such periodical self-evaluation by administrative authorities responsible for the preparation and implementation of plans is inescapable and has its own value. But it is also necessary to supplement it with more objective evaluations from other agencies as well. There is a provision in India under which the Planning Commission can appoint special COPP (Committees on Planning Projects) to evaluate certain programmes. But the machinery has been used very infrequently in education and the problems referred to have not also been of great significance. While this device does have a definite use in certain cases, it cannot be depended upon exclusively. Besides, its *ad hoc* character and the difficulty of obtaining high level staff in such temporary assignments also detracts from its competence. We have also tried the experiment of creating a whole-time and permanent staff for evaluation. While this overcomes the difficulties inherent in the *ad hoc* COPP teams, it is open to other weaknesses such as heavy cost or bureaucratisation. All things considered, it is better to involve the universities intensively in evaluation of plan projects. This will be both efficient and economical. What is more important, it will help to break the isolation of the universities and bring them closer to the life of the community.

The position regarding the staff of the planning units is not happy. The present units are mostly understaffed and there are no proper arrangements for their training. In a vast country like India, there is need for a National Staff College for Educational Planners and Administrators, especially if the idea of district level plans is accepted.

36. *Problems of Educational Planning in a Federal Democracy.* I shall now deal with one or two problems of educational planning which are peculiar to India because of its vast size and constitutional position as a federal democracy. Our central problem in educational planning and development is to evolve a national policy in education. Experience has shown that this is not very easy in the present constitutional set-up. Education is essentially a State subject though some matters like the co-ordination and maintenance of standards in higher education are a Central responsibility. Each State is, therefore, quite free to evolve policies of its own. The Centre has tried to persuade them to agree to some common national policies through discussion and, wherever necessary, by using the power of the purse. But this technique of alternate cajoling and bribing has not always been successful. It is true that in the absence of legal authority two unifying forces have indirectly helped to evolve the national policy in the past, viz., the personal leadership of Pandit Jawaharlal Nehru and the Indian National Congress which was in power in all the States and at the Centre. The first of these has already disappeared and there are enough indications now to show that the centre of gravity of political power is increasingly shifting to the States. The second will also be less significant in future because non-Congress governments would come into power in some States at least after the present general election. To overcome these problems a proposal has been put forward to make education a Concurrent subject so that Parliament could legislate and evolve a national educational policy. But the idea has not found favour with the State Governments and is not likely to be accepted.

The difficulty does not end here. Even the State Governments are not in a position to evolve uniform policies for their areas or rigorously to enforce them. Local bodies have been associated with the control of primary (or even secondary) education in several States and taking the country as a whole, they administer about 40 per cent of the educational institutions. Although in theory they are the agents of the State Governments which can control them to a great extent, the practical position is that the local bodies are often too numerous and too strong to be effectively controlled. Similarly, about a

third of the educational institutions in the country are private and the proportion of private institutions in secondary and higher education is very high. This disperses the authority still further and makes it more difficult to evolve and enforce common policies.

37. Centralization of authority may make the evolution of a national educational policy easy from the administrative point of view. But this is not politically possible. It may not even be desirable in a vast country like India, where local conditions vary so greatly from one part to another. In the federal democracy that India is, the evolution of a national educational policy is thus a difficult and slow process and its success will depend on the leadership provided by the Centre and on the understanding and co-operation between the different agencies that jointly provide all the educational facilities needed, viz., the Central Government, the State Governments, the local bodies and the voluntary organizations.

38. Another set of problems, i.e. financial, also arise in this context. Under the Constitution, most of the elastic and expanding revenues are vested in the Centre while most of the costly services (including education) are to be provided by the States. This creates an imbalance and leads to chronic deficits in State budgets. Consequently, the States generally do not have adequate resources to finance their developmental plans. To remedy this situation, two devices are adopted. During a five year plan, grants-in-aid to States for developmental purposes are given by the Planning Commission; and at the end of the plan period, all the committed expenditure of the States is determined and the Finance Commission (which is appointed every five years) transfers revenues and gives grants-in-aid to the States to enable them to balance their budgets. We are only concerned here with the former.

39. The help from the Centre to the States in educational development is of three types:

*Central Schemes.* These programmes are financed and implemented by the Centre. To the extent these operate, the liability of the States gets reduced.

*Centrally Sponsored Schemes.* These are financed by the Centre in full; but the funds are placed at the disposal of the States for implementation of specific schemes; and

*Centrally Assisted Schemes.* These are schemes in the State plans for which the Centre gives assistance, not separately for each scheme, but for the plan as a whole.

There are no problems about the first and third categories. But the States do not like the second category of ear-marked grants or 'aid with strings'. They demand block grants which they can use at will. On the other hand, these schemes of ear-marked assistance are essential to save the States from themselves, to protect vital sectors (e.g., qualitative), which tend to be ignored at the State level because of the peculiar pressures that arise at that level (e.g., expansion), and to ensure the evolution of a common national policy in education. This is one of the important controversies in our educational planning at present and is yet unresolved.

#### V I. CONCLUSION

40. In giving this detailed account of the problems of educational planning in the developing countries, as arising from the experience in India, I hope I have not created an impression of despair. I have highlighted the complexity and difficulty of the problems because not to do so would be a failure in duty. But this very complexity and difficulty should enable us to accept the challenge of educational planning and to strive earnestly and intensively to make it a success. For the developed countries, educational planning is comparatively easy and they can also do without it if they choose. But for the developing countries, the most careful planning, intensive utilization of available resources, dedication and hard work are inescapable. It is only through these that they can make up for the shortfalls in terms of materials and money, telescope development, and catch up with the developed countries. "When scarcity rules a people", says Mr Asoka Mehta, "the need for a clear focus, deeper understanding, collective discipline, hard work and dedicated leadership becomes inescapable".<sup>4</sup> Of all these significant factors mentioned here, I attach great importance to the 'dedicated leadership' of teachers and educational administrators. The educational problems of a developing country can be solved only if there is a large band

<sup>4</sup> *The Politics of Poverty*. Feroze Gandhi Memorial Lecture delivered at New Delhi, 8 September, 1965.

of idealistic workers who are willing to devote themselves to the task of moulding the rising generation. It may not be easy to plan for the creation of such a band of missionaries; but it is doubtful if anything worthwhile can ever be achieved by a nation which cannot create it.

#### ANNEXURE

##### MAIN RECOMMENDATIONS OF THE EDUCATION COMMISSION (1964-66)

The Education Commission, which recently submitted its Report to Government, was appointed about two years ago under the Chairmanship of Dr D. S. Kothari, an eminent Indian scientist and educationist. This is the sixth Commission to be appointed in the history of modern Indian education and the third since the attainment of Independence. In some ways, however, it is unique and the first of its kind. All the five earlier Commissions dealt, not with education as a whole but with some of its aspects—one with school education and Colleges (excluding universities), two with university education, one with secondary education. But the terms of reference of this Commission were, for the first time, comprehensive. It dealt with all aspects and sectors of education and was required to advise Government on the evolution of a national system of education for the country. Another unique feature of the Commission was its international composition: it included eleven Indian members and five others—one each from France, Japan, the UK, the USA, and the USSR. This made it possible to review the Indian experience in a comprehensive manner and to relate the reconstruction of Indian education to the latest developments in some of the educationally most advanced countries of the world.

#### THE BASIC APPROACH

The Commission has reviewed the development of education in India in the modern period and particularly since Independence, and has come to the conclusion that Indian education

needs a drastic reconstruction, almost a revolution, if the country is to realise its long-term goals stated in the Preamble to the Constitution or to meet the problems facing it in different sectors. This comprehensive reconstruction, says the Commission, has three main aspects:

internal transformation so as to relate it to the life, needs and aspirations of the nation;

qualitative improvement so that the standards achieved are adequate, keep continually rising and, at least in a few sectors, become internationally comparable; and

expansion of educational facilities broadly on the basis of manpower needs and with an accent on equalization of educational opportunities.

#### INTERNAL TRANSFORMATION

In the opinion of the Commission, no reform is more important or more urgent than to transform education and to endeavour to relate it to the life, needs and aspirations of the people. This is extremely significant because it is only such a transformation that can make education a powerful instrument of the social, economic and cultural changes necessary for the realisation of national goals. It is also urgent and has to be accorded a priority over expansion because the greater the expansion of the traditional system of education, the more difficult and costly it becomes to change its character.

The Commission has emphasized the following ten programmes to bring about this transformation.

(1) *Science Education.* Science education should be made an integral part of all school education. Its teaching at the university stage should be improved and special emphasis should be laid on the development of scientific research.

(2) *Work Experience.* Work experience, which may be defined as participation in productive work in school, in the home, in a workshop, on a farm, in a factory or in any other productive situation, should be made an integral part of all general education. It should be varied to suit the age and maturity of students and oriented to technology, industrialisation and the application of science to the production process, including agriculture.

(3) *Vocational Education.* Vocational education should be emphasized, particularly at the secondary stage. At the lower secondary stage (age-group 14-16) vocational education should ultimately be provided to about 20 per cent of the enrolment; at the higher secondary stage (age group 17-18) such enrolment should be increased to 50 per cent. In higher education, about one third of the total enrolment may be in vocational courses. In particular, it is essential to emphasize the development of education and research in agriculture.

(4) *The Common School.* A common school system of public education which would provide equality of access to children from all social strata, and which would be adequate in quantity and quality should be developed in a phased programme over the next 20 years.

(5) *Social and National Service.* Some form of social service should be obligatory on students at all stages. The nature and programmes of such services should vary according to the age and maturity of students.

(6) *Language Policy.* All modern Indian languages should be developed and used as media of education at the university stage and as the languages of administration in the States concerned. Hindi should be developed as a link language for the country as a whole, and as the official language of the Union. English should be continued to be studied as the most important library language and window on the world. Side by side, the study of other important library languages, and particularly of Russian, should be encouraged. The three-language formula should be modified: only the mother tongue should be compulsory at the lower primary stage; a second language should be added at the higher primary stage—either Hindi or English; at the lower secondary stage, all the three languages should be studied—mother tongue, Hindi (or a modern Indian language in Hindi areas) and English; any two of these languages should be compulsory at the higher secondary stage; and no language should be compulsory at the university stage.

(7) *Promotion of National Unity.* National consciousness and a sense of unity should be promoted through curricular and co-curricular programmes. This should be done side by



side with the development of education for international understanding.

(8) *Elasticity and Dynamism.* The existing system is rigid and uniform and is tending to be more so. Vigorous measures would have to be taken to introduce a large element of elasticity and dynamism in several sectors such as prescription of curricula, adoption of teaching methods, selection of subjects by the students at different stages and administrative procedures. A large programme of in-service education for teachers and educational administrators has been suggested for this purpose.

(9) *Part-time and Own-time Education.* At present, facilities are provided only for full-time education. It is necessary to develop a large programme of part-time and own-time education side by side and to give it equal status with full-time education. The Commission proposes that 20 per cent of the enrolment at the higher primary and lower secondary stages, 25 per cent of the enrolment at the higher secondary stage and about one third of the enrolment at the university stage should be in part-time or self-study courses.

(10) *Education in Social, Moral and Spiritual Values.* The education system should emphasize the development of fundamental social, moral and spiritual values. There should also be some provision, in a multi-religious and democratic society like that of India, for giving some instruction about the different religions.

#### QUALITATIVE IMPROVEMENT

The Commission has emphasized the need for dynamic and evolving standards of education. This, in fact, is the crucial programme in Indian education at present and will have to be emphasized during the next twenty years. For this purpose, the Commission has recommended the adoption of the following measures:

(1) *Utilization of Facilities.* Utilization of existing facilities is extremely inadequate at present. The Commission is of the view that the first step in improving the standards is to maximize the utilisation of existing facilities and has made several recommendations for this purpose such as increasing the number of working days, lengthening the duration of the

working day, proper use of vacations and creating a climate of sustained and dedicated work.

(2) *Reorganisation of Educational Structure.* The Commission has recommended that the educational structure should be reorganised. The first ten years of school education should be a period of general education, specialization generally being adopted after class X. The higher secondary stage is proposed to be of two years' duration and would be followed by a first degree course whose duration will be not less than three years. The Commission has also suggested that the higher secondary stage should ultimately be located in schools.

(3) *Teachers' Status and Education.* The Commission has recommended substantial improvements in the remuneration of teachers, particularly at the school stage. The gap in the remuneration of teachers at different stages of education is proposed to be abridged. There would be parity and uniformity in respect of scales of pay, allowances and retirement benefits between teachers working in all types of educational institutions—government, local authority or private. There would be adequate opportunities for promotion, and conditions of work and service would be improved. If the recommendations made by the Commission in this regard are implemented, there would be an adequate feed-back of the best persons coming out from the educational system into the teaching profession and this would raise the standards exponentially.

(4) *Curricula, Methods of Teaching and Evaluation.* The Commission has recommended drastic changes in curricula, teaching methods and evaluation, and has emphasized the need for a large element of elasticity and dynamism. Particular mention may be made of its proposal to create autonomous colleges and experimental schools which would be free from the shackles of external examinations.

(5) *Selective Development.* Since the resources available in men, materials and money are not adequate to improve all institutions the Commission has recommended that during the next ten years ten per cent of the institutions should be upgraded to adequate standards. At the primary stage these institutions should be distributed equitably in all parts of

the country. In secondary and higher education, an attempt should be made to upgrade at least one secondary school in every community development block and one college in each district. At the university stage, about five or six universities should be selected for intensive development by locating clusters of centres of advanced study in them and should be helped to reach internationally comparable standards.

#### EXPANSION OF EDUCATIONAL FACILITIES

Expansion of educational facilities has been recommended by the Education Commission at all stages but the priority accorded to it is after internal transformation and qualitative improvement. The following are among the more important programmes recommended.

(1) *Adult Literacy.* The Commission has suggested that part-time courses of about one year's duration should be conducted for all children in the age group 11-14 who have not attended school or left it before attaining literacy. This would prevent further addition to the ranks of adult illiterates. Campaigns for liquidation of adult illiteracy should be organised on a selective or mass campaign basis according to the local situation. The overall attempt should be to raise the percentage of literacy (which is now about 30) to 60 by the end of the Fourth Plan to 80 by the end of the Fifth Plan.

(2) *Primary Education.* Good and effective primary education should be provided to all children. The objective of educational policy should be to provide five years of such education by 1975 and seven years of such education by 1985.

(3) *Secondary and Higher Education.* This should be expanded on a selective basis and the output of educational institutions should be broadly related to man-power needs or employment opportunities.

The Commission visualizes that by 1985, the total enrolment in the national system of education would rise from 70 million in 1965 to 170 million in 1985. Educational expenditure would rise during the same period from Rs. 6,000 million in 1965 to Rs. 40,000 million in 1985. The proportion of national income devoted to education would rise from 2.9 per cent in 1965 to 6 per cent in 1985.

In bringing about this expansion, great emphasis should be laid on the equalization of educational opportunities. The provision of good and effective primary education to all children would be the first major step in this direction. In secondary and higher education, a large programme of scholarships and placement should be developed and admissions to quality institutions should be made on the basis of talent. Special precautions should be taken to see that students from rural areas or backward social strata are not handicapped in the general competition for admission to good institutions or to higher education.

#### GENERAL

The keynote of the educational reconstruction recommended by the Education Commission is to create an educational system based on science and in coherence with Indian culture and values. It is necessary to emphasize science because in the modern world the progress, welfare and security of the nation depend critically on a rapid, planned and sustained growth in the quality and extent of education and research in science and technology. Science can also be of great help in relating education to productivity and in extending education, which has so far been the privilege of a small minority, to the masses of the people. It has also a great cultural value as a powerful dispeller of fear and superstition, fatalism and passive resignation. The development of science, however, has to proceed side by side with the development of a sense of social responsibility and the cultivation of moral and spiritual values. If this is not done, man may even destroy himself. His salvation lies in blending scientific and spiritual values or in creating 'an age of science and spirituality'. In this context, the words of the Commission itself would bear quotation:

'Atom and *Ahimsa*, or, to put it differently, man's knowledge and mastery of outer space and the space within his skull, are out of balance. It is this imbalance which mankind must seek to redress. Man now faces himself. He faces the choice of rolling down a nuclear abyss to ruin and annihilation or of raising himself to new heights of glory and fulfilment

yet unimagined. India has made many glorious contributions to world culture, and perhaps the grandest of them all is the concept and ideal of non-violence and compassion sought, expounded and lived by Buddha and Mahavira; Nanak and Kabir; Vivekananda, Ramana Maharishi and Gandhi in our times, and which millions have striven to follow after them.

'The greatest contribution of Europe doubtlessly is the scientific revolution. If science and *ahimsa* join together in creative synthesis of belief and action, mankind will attain to a new level of purposefulness, prosperity and spiritual insight. Can India do something in adding a new dimension to the scientific achievement of the West? This poses a great challenge and also offers a unique opportunity to the men and women of India, and especially to the young people who are the makers of the future.'